COLONIAL REPORTS—ANNUAL.

No. 216.

COCOS-KEELING

AND

CHRISTMAS ISLANDS.

REPORT ON THE ANNUAL VISIT FOR 1897.

(For Report for 1896, *see* [C. 8367] March, 1897.

Presented to both Houses of Parliament by Command of Her Majesty.

November, 1897.

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No. 216.

COCOS-KEELING AND CHRISTMAS ISLANDS.

(For Report for 1896, *see* [C. 8367] March, 1897.)

ACTING GOVERNOR KYNNERSLEY to MR. CHAMBERLAIN.

Government House,

Singapore,

7th September, 1897.

[EXTRACT.]

I HAVE the honour to forward herewith six copies of a Report by Mr. Justice Leach on the Cocos-Keeling and Christmas Islands.

Mr. Leach was deputed to pay the annual visit to those Islands, and his Report is an interesting one.

If Mr. Ross's expectations as to the existence of phosphate in large quantities on Christmas Island are borne out, the discovery would prove a most valuable one.

The health of the people, both on Christmas Island and the Cocos-Keeling, appears to be good and no deaths from beri-beri are reported. The rate of mortality among children continues high, but this is equally noticeable among the Malay population of the Straits Settlements.

The Ross family apparently exercise great influence over their people, and there can be no question that this influence is for their good. No complaints whatever were made; crime is reported to be unknown, and the people, both Natives and Bantamese, are said to be happy and contented.

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COCOS-KEELING AND CHRISTMAS ISLANDS. 1897.

Mr. Leach mentions in his Report on the Cocos-Keeling Islands the fact (paragraph 12) that six Bantamese asked to be sent back to Batavia, but they made no complaint of detention, and will no doubt be allowed to leave when opportunity offers.

The number of children being educated appears small, but Mr. Leach does not advocate compulsion, and would rather trust to the influence of Mr. Ross to induce parents to make their children attend. The Malay books asked for by the teacher will be forwarded.

The Report gives a pleasing picture of the social life of the inhabitants of these distant Islands, cut off as they are for half the year from the outside world, and Mr. Leach is, I think, justified in his commendation of the Ross administration.

Report by His Honour Mr. Justice LEACH, deputed by His Excellency the Governor of the Straits Settlements to visit the Christmas and Keeling-Cocos Islands.

CHRISTMAS ISLAND.

1. Punctually at 8 a.m. on the 15th July, H.M.S. "Iphigenia" (Capt. Dudding, R.N.) steamed away from Singapore Roads, and, successively passing through the beautiful Straits of Rhio and Banka and the grander Straits of Sunda, arrived off Java Head about 2.30 p.m. on the 17th July: the ship's course was then set S. 12° E. for Christmas Island, which we reached the next morning at 9 a.m. after a run from Singapore of 720 nautical miles. As we approached Flying Fish Cove, a small schooner, which proved to be the "Tweed," 97 tons register, was sighted lying at anchor close inshore. The cove takes its name from H.M.S. "Flying Fish," which visited the Island in 1886.

2. Shortly after our arrival, Mr. George Clunies Ross and his brother Mr. Andrew Clunies Ross came off in a boat to greet us, and, accompanied by the Doctor and one or two Officers and the Interpreter, we went ashore, where we were made heartily welcome.

3. Mr. George Clunies Ross, his wife, his daughter Miss Gertrude Clunies Ross, and Mrs. Baynton, a widow sister, had

arrived there in the "Tweed" from the Cocos Islands on the 4th July, and the yawl the "Clunies Ross," 68 tons, which had left the Cocos at the same time, had arrived on the 8th July, but had sailed again before our arrival for Batavia to bring over Mr. Andrews of the British Museum and Mr. Wilkinson an Engineer. On reaching Batavia, on our return voyage, we found that these gentlemen had left on the 23rd July.

4. During Mr. George Ross's recent visit to England, the differences which had hitherto existed between himself and Dr. Murray, his co-lessee of the Island, were brought to a settlement, and a Company has been formed and registered in London under the name of "The Christmas Island Phosphate Company, Limited."

5. The Company is formed chiefly for the purpose of working and exporting phosphate, but as the papers relative to the Company had not arrived from England, I could not ascertain more details of its object; Mr. Ross, however, informed me that the Company was divided into 1,500 shares, of which he held 750 shares and Dr. Murray and his friends the other half. The shares have not been offered to the public.

6. The object of Mr. Andrews's visit is of general interest. It is to ascertain the structure and formation of the Island. It is supposed to be a raised coral atoll. The Island is an irregular quadrilateral and is 9 miles in length on the North, East and South sides, and 4 miles on the West. In appearance it is somewhat saddle-shaped, sloping from a long back in the middle to hills on the North-East and West. At the West end, it has a double summit rising to 1,580 feet, and to the North-East the hill rises to over 1,000 feet.* At the outer base of the Island, at Flying Fish Cove, detrited coral is abundant all round the shore; and some hundred yards inland, I saw what appeared to me to be a solid coral cliff rising 100 feet or more. Mr. Ross's theory is that the Island was originally a coral atoll like the Keeling Cocos with a lagoon in the centre, but the centre of which has, under the influence of volcanic action, been upheaved to its present elevation, causing the lagoon entirely to disappear. If the right solution of this question is arrived at, it is thought that it will finally settle the much controverted Darwin subsidence theory of 1836. It is quite possible, having regard to the nature and the formation of the Keeling Cocos atoll, that at one time Christmas Island may have been of the same character, and assuming a similar upheaval to have taken place in the Cocos atoll, as is supposed to have occurred in Christmas Island, it would now probably be approximately of a similar though smaller area to

* *See* the Sailing Directions and the report of Captain (now Admiral) Maclear of H.M.S. "Flying Fish" in the Proceedings of the Zoological Society for 1857.

that Island. The lagoon at the Cocos is about 8 miles from N. to S., 6 from E. to W. The circumference of the Cocos is about 25 miles, and that of Christmas Island over 30 miles.

7. The object of Mr. Wilkinson's visit is also of great interest, but more particularly to those interested in the Island. It is to ascertain, on behalf of the Company (or Dr. Murray, or both), the quantity and quality of the phosphate on the Island. The site of the phosphate at present discovered is some way inland behind Flying Fish Cove and is known as Phosphate Hill on the North-East. The hill is 1,024 feet above sea level. Mr. Ross estimates that it holds 1,000,000 tons of stones containing from 60 per cent. to 97 per cent. of phosphate. Phosphate, I understand, is used chiefly for manuring tobacco plantations.

The Island is practically unexplored, and the source of the waterfall on the South side, mentioned in former reports, has not yet been discovered, although three attempts have been made. So that it is quite within the range of possibilities that the supply of phosphate may be unlimited.

Mr. Ross is of opinion that the phosphate was originally guano which, having been dropped on to the coral and into its interstices, has, in the course of ages, by some chemical action, become almost pure phosphate; the volcanic upheavals would account for the altitude at which it is formed.

8. Mr. Ross's visit to the Island is primarily to supervise Mr. Wilkinson's operations and to give him the benefit of his help, knowledge, and experience, but Mr. Andrews has, doubtless, received that welcome and assistance which Mr. Ross always accords to every visitor.

9. In anticipation of Mr. Wilkinson's visit, a clearing has been commenced from the shore on the East side of the cove up the incline towards Phosphate Hill. About 100 yards from the shore, quite close to the coral cliff I have alluded to, the ascent is very steep, and it is intended to use this part of the hill as a shoot to send the phosphate stones to the level of the shore.

Of the prospects of the Company, I am unable to speak.

Mr. Ross has petitioned the Dutch Government in Batavia for 36 Bantamese coolies.

It appears essential to the successful opening up of the resources of the Island, that Mr. Ross should have at his disposal a greater number of coolies.

10. Exclusive of those who are visiting the Island for a special purpose, the ordinary population of the Island has undergone little change since last year. Two Cocos-born men have returned to their birth-place, and two Cocos-born "boys," as they are called before marriage, have married two Cocos-born girls, who, I understand, came over from the Keeling Cocos.

Of the Ross family, Mrs. Lindsay with a daughter and two children have returned to the Cocos Islands.

There has been no death or birth during the year under report.

The general health of the population has been excellent. The death reported in paragraph 28 of Mr. Keyser's report, refers to the death of a "boy" who was sent over from the Cocos suffering from diabetes and abscess of the liver. After improving in his health, he died suddenly.

Dr. Croply, who accompanied me on shore, prescribed for an affection of a boy's eye.

11. During the afternoon, accompanied by the Interpreter, I visited the native dwellings on the west side of the cove; they appeared to be kept neat and clean. I noticed that most, if not all, of the dwellings had a cement flooring raised about 1 foot from the ground.

12. The natives quickly gathered round me, and one and all declared that they were happy and content and that they had no complaint to make.

13. Crime is unknown on the Island.

14. In the afternoon, I also walked through the coffee plantation some 300 feet up the hill, at the steep part which it is intended to use as a shoot. Everything seemed to be growing luxuriantly, and notwithstanding a 6 or 7 months' drought last year, the coffee appeared to be doing well. I noticed some orchids on the trees and especially one with a small white flower, but the specimen I obtained was lost.

The place was alive with frigate birds, boobies, gannets, etc., and large fruit-eating bats not unlike the flying fox when on the wing (*Pteropus Natalis?*). I noticed a number of small swallow or martin which Mr. George Ross believes is of the kind which builds the nest from which bird's nest soup is made, but as yet their cave-homes have not been discovered.

Higher up the hill some of the ship's "sports" easily obtained some 25 couple of a metallic-blue pigeon weighing from 1 lb. to 1½ lbs. They proved excellent eating. The pigeon is a new species named *Carpophaga Whartoni*. It is allied to the *C. Janthina* of Japan. A smaller pigeon was also observed with green wings and chocolate-coloured body.

The soil of the Island is a rich brown in colour, and even high up the hill, Mr. George Ross told me, it is in places 20 or 30 feet deep. If the phosphate enterprise

does not succeed, there is always export coffee planting to fall back on. The chief difficulty in the way of both enterprises appears to be the acquisition of labourers and the cost of export.

The timber felling, alluded to in paragraph 9 of Mr. Keyser's report, has not been proceeded with.

In the course of our walk uphill, a small brilliant red crab was frequently to be seen running in and out of holes, or from under stones : on my noticing it, Mr. George Ross, confirmed by Mr. Andrew Ross, told me that once a year, in the month of December or January, they (male and female) travel down to the sea margin. There the female deposits her eggs and the parents again return.

They take 15 days going and 15 days returning, and travel in bodies like ants. After the eggs are hatched, the young, when big enough, in turn move uphill. I have heard that in Jamaica there is a similar migration of crabs.

15. Mr. Keyser, in paragraph 18 of his report, mentions the peculiar habits of the white tern and frigate bird. The two birds are of an entirely different class. The white tern or noddy is unknown in Christmas Island, and it lays but one egg at a time, so that the story of its laying its eggs head and tailwise alternately is mistaken.

It inhabits the Keeling Cocos and especially Horsburgh Island, indeed it has been called the Cocos pilot from the fact that it is not seen more than 40 miles away, and when seen the Islands are known to be near. When I come to that part of my report which deals with these Islands, I shall venture further scepticism as to its habits.

As to the frigate bird, I could learn of no such story as that told by Mr. Keyser. It builds itself a regular nest. I saw the young in them, but the frigate as well as other birds, I understand, do change the fish food of their young, according as the weather outside on their fishing ground is propitious or not.

16. In paragraph 23, Mr. Keyser says there are scarcely any butterflies. Mr. Ross assured me this was a mistake ; at certain times of the year there is a considerable variety of butterflies, moths, and other insects.

17. The exports of the Island at present are nil, except of hard wood to the Cocos for ship and other building purposes.

The imports are stores, &c.

18. The rat nuisance continues; there are three kinds of rat :—

(1) A large brown and black harmless species something like a beaver in appearance which burrows under the earth and lives in colonies.

(2) A big rat (the devastator) with reddish brown hair deepening into black with half white tail, which retires by day under stones and rocks and comes out at night to devour every thing it can get hold of. As their number has increased and the difficulty of obtaining food increased also, they have adapted themselves to circumstances by climbing the fruit trees for food.

An attempt to grow Indian Corn was frustrated by this pest.

Their only known enemies are the dogs, which alone render the dwellings habitable.

It is not ascertained as yet whether this species is peculiar to the Island or not. It is an entirely different kind to the Cocos rat, which was brought to those Islands by a ship. The Christmas rat is named, after Admiral Maclear, *Mus Macleari*.

The big land crab (*Birgus latro*), which has been described before, does not even escape them. They are attacked by the rats for the sake of the oil-sac which is carried under the tail. The full grown crab with its powerful claws is more than a match for the rat, but the younger crab gets the worst of the encounter.

Darwin doubted whether the crab climbed trees. It is now a well ascertained fact, but for what purpose still remains an open question. Mr. Forbes, in his book on the Malay Archipelago, negatives the assertion that they climb the palms for the nuts.

(3) The other species is small and harmless, with a long snout.

There are now only 1 goat and 2 pigs on the Island, but tame duck and fowl flourish.

19. Before our arrival, there has been no visit from any ship during the year under report, except from the "Tweed" and "Clunies Ross."

20. Since the visit of H.M.S. "Æolus," Mr. Andrew Ross has taken a daily record of the temperature, with remarks on the direction of the wind and of the state of the weather. This he

COCOS-KEELING AND CHRISTMAS ISLANDS. 1897.

kindly placed at my disposal. The table below shows the maximum and minimum temperature and the general direction of the wind for each month since June, 1896 :—

THERMOMETER READINGS.

Month and Year.	Maximum.	Minimum.	Direction of Wind.
1896.			
°June ...	81·07	74·	E.S.E., Fair.
°July ...	80·07	72·08	S.E. to E.S.E.
°August ...	83·	72·05	E.S.E.
°September	84·	73·	E.S.E.
°October ...	85·	74·	E.S.E.
*November...	85·	75·	E.S.E.
*December...	86·	73·	S.E. to S.S.E.
1897.			
January ...	88·	75·	N.N.W., Strong. (First rain after drought.)
February ...	89·	76·	S.S.W., Variable.
March ...	82·	76·	S.W., Light showery with heavy seas.
April ...	86·	77·	E.N.E. to E.S.E., Rain and heavy seas.
May ...	84·	78·	E.S.E., Showery.
June ...	85·	75·	E.S.E. (Steady), Cloudy but no rain.
July ...	84·	78·	E.S.E., Strong with rain showers.

During the months marked with an asterisk* the wind was steady to fresh, but there was no appreciable rain. It is the longest drought remembered. The first rain fell in January last. No barometer readings are taken.

The great drawback to the Island is that the only landing place is at Flying Fish Cove, and that for six months in the year there is not only no anchorage, but landing is impossible.

21. At Mr. Ridley's request, I obtained specimens of—

(i) The so-called bastard teak wood locally called "Boongoor."

(ii) The scented wood locally called "Kayu Wangi."

I also obtained a small piece of a wood (iii) called the stinking wood "Kayu Boosok."

All these woods are avoided by the white ant.

I could obtain no flowers of these trees, but I obtained the leaves and seeds of the teak, and dried leaves of the stinking wood.

I also obtained two samples of the stone said to contain over 90 per cent. of phosphate, and a few shells for the Museum of the cowrey or cyprœa kind.

22. In conclusion, I cannot but regret that my visit was so limited in time, more especially as Mr. George Ross had to remain behind. There was much more I should have liked to have made enquiries about. The future of Christmas Island will be watched with great interest.

Every assistance, attention, and kindness was shown to us.

We steamed away as darkness set in, and after clearing the Island our course was set S. by W. for the Cocos, 520 miles away (nautical).

ANDREW J. LEACH.

Singapore, 9th August, 1897.

Cocos-Keeling and Christmas Islands. 1897.

KEELING COCOS OR COCOS KEELING ISLANDS.

1. After a somewhat uncomfortable passage with rollers on the port quarter, we sighted the Islands about 6.30 a.m. on the 21st July, and entered the coral circle close on 9 a.m., passing between Direction Island on our port, and Horsburgh Island on our starboard, and anchored in 5 fathoms about 2½ miles from New Selma (not Selima) or Settlement Island, and about half a mile from the entrance; the anchorage is good in the absence of rollers from the N.E. or E., which Mr. George Ross had assured Captain Dudding were not probable at this season of the year.

2. As we left the ocean depths of deepest blue and entered the coral circle, the contrast was most remarkable, the brilliant colours of the waters, transparent to a depth of over 30 feet, now purple, now of the bluest sky blue, and now green, with the white crests of the waves flashing under a brilliant sun, the encircling twenty-three palm-clad islands, the gaps between which were to the South undiscernible, the white sand shores and the whiter gaps where breakers appeared, and lastly the lagoon itself 7 to 8 miles across from North to South and 5 to 6 from East to West, presented a sight never to be forgotten.

3. After some little delay, Mr. Sidney Ross, the eldest son of Mr. George Ross, came off to meet us, and soon after, accompanied by the Doctor and another Officer, we went ashore.

On reaching the landing stage, we found, hauled up for cleaning, &c., the "Spray," of Boston, a yawl of 12·70 tons gross, the property of Captain Joshua Slocum.

He arrived at the Island on the 17th July, 23 days out from Thursday Island. This extraordinary solitary traveller left Boston some two years ago single handed, crossed to Gibraltar, sailed down to Cape Horn, passed through the Straits of Magellan to the Society Islands, thence to Australia, and through the Torres Straits to Thursday Island. He was a most interesting and amusing raconteur.

4. The next sight that struck us was the ship and boat-building sheds, where work goes on busily from year's end to year's end.

Here we saw the life-boat or whaler mentioned by Mr. Keyser. It is complete, except for fittings, which are expected to come from home. The boat is intended to be used as a lighter to load copra on the annual ship. Other boats were also in course of construction, and amongst them a beautifully modelled boat like, but some two feet longer than, the boat in which we had

come ashore. It is a centre-board boat, with two masts carrying a mainsail, foresail and jib; the rudder is manœuvred by lines with an auxiliary in the shape of a large oar in case of need. The general workmanship of the boats is exquisite, and called forth the admiration of several of the officers of the ship. The woods from Christmas Islands and the hard wood of the Cocos are used in combination.

5. We were welcomed on shore by Miss Ross and her sister Miss Mildred, and I was comfortably housed during my stay in the bachelor quarters, in which Mr. Sidney Ross also has his lodging.

6. The first visit of inspection was paid to the school, where I presented to Rajeli, the schoolmaster, a long map of the world and a small globe, kindly sent by the Government, and with which he appeared very pleased.

Rajeli had to announce that his pupils were reduced to seven, six of whom were pupils of last year, and one a new boy, the eldest being 13 years old, and the youngest (the new boy) eight; seven boys had left to work in the workshops.

Boys though willing to go to school are prevented from doing so by their parents, on the pretext either that they are wanted at home, or that their clothes are not good enough, though parents, as a rule, do not object to their boys going to the workshops.

Mr. Sidney Ross threw out a suggestion that attendance at school might be made compulsory for two years, say from 8 or 9 years old to 10 or 11, during which period, he thought, they could learn to read and write in Malay sufficiently well for all purposes of an island life, such as they have to look forward to.

Rajeli reported that the boys were doing well. I put a few questions to them, and they seemed intelligent but shy.

Rajeli asked for more books, a Primary A B C, and spelling book in English, and No. 3 Malay book, also for the stories of Hikayat Abdullah, Playaran Abdullah, Hikayat Miskin, and Galila Demenah.

The school hours are from 9 A.M. to noon and from 1 P.M. to 4 P.M.

I am not at all sure that it would be desirable to make education compulsory even in a limited degree. It would probably cause discontent. Hitherto, I understand, it has been entirely voluntary, and no pressure is brought to bear; if it is desired to extend education, I should think that the first step would be for Mr. Ross to exercise his influence in inducing the parents to send their children to school.

7. Having walked through the Cocos side of the Settlement, I joined Dr. Croply in a visit to the Bantam village. The contrast is considerable.

The Cocos houses are in appearance neater and cleaner, externally and internally, than the Bantam houses.

The premises of the Cocos-born generally include a neatly kept garden of pink roses or scarlet hybiscus, or other flowers, with a fenced enclosure. In the Bantam village there is an absence of any attempt at gardening, the houses have not such a neat and clean appearance as the Cocos houses, and their interiors are more dingy, but on the whole appear to be fairly clean.

8. In the Bantam village we attempted to find a man named Omar, said to be suffering from beri-beri, but learnt that he had gone out to work. Curiously enough he died suddenly the next day, when the doctor was not on shore, and he was buried before the doctor came ashore again. The doctor saw and prescribed for a man almost blind. He thought the condition of his eyes was due to salt and sand driven into the face by the wind, ensuing inflammation, and neglect.

9. With the exception of the paralyzed boy mentioned by Mr. Keyser, these were the only two cases of sickness we heard of during our stay, and the general health of the people appears to have been good.

There have been no ascertained cases of beri-beri; Omar's death was most probably due to abscess of the liver.

10. I append a table (I) showing the population in June, 1896, and the alterations which have since taken place; the table includes the population of Christmas Island. The Cocos born population include the Ross family and three Norwegians, one of whom—Captain Syvensten of the "Clunies Ross"—has recently married a niece of Mr. George Ross. There were two other marriages, but I think these must be the two mentioned in my report on Christmas Island.

It will be noticed that whereas in 1896 the births recorded totalled 71, the births now recorded total only 46; on the other hand the deaths of children recorded last year were nearly half the births, viz., 33, and this year nearly one-third the births, viz., 16.

The deaths of the children are attributed in nearly every case to thrush, or what Mr. Keyser calls aptha. Death occurred in all cases within two or three months of birth. I could obtain no evidence of neglect or any more serious charge, but I had no opportunity of discussing the matter with Mr George Ross. Four deaths were the result of accident. Four Cocos men went

outside the lagoon to obtain birds for food, a squall capsized their boat and they were all drowned. Mr. Ross has since caused a notice in Malay to be posted warning the people not to go outside the lagoon. One woman died from paralysis some time after child-birth, and the remaining 12 died either from old age or some dropsical complaint.

It will also be observed that whereas the returns show that Cocos women exceed the Cocos men by 11, the Bantam men exceed the Bantam women by 20. It is much the same with the children; the Cocos boys are less by 23 than the girls, but the Bantam boys exceed the girls by 11. As regards adults this may be partly accounted for by the fact that when a Bantam girl marries a Cocos man, she passes into and is counted as a member of the Cocos community.

The Cocos girl compares favourably in appearance with the Cocos man. They are, as a rule, better set up and well developed, with remarkably straight backs. The men, so far as I observed, slouched and were more slovenly in bearing. The girls were, as a rule, good looking and taking. Here and there, however, thick negro lips were to be seen and sometimes curly hair. This is due to the importation of some West African negroes in the earlier days of the Settlement. The increase in the population is really due to the importation of 15 Bantamese.

11. The boy mentioned in paragraph 10 of Mr. Keyser's report I saw on several occasions, and the doctor also examined him. He is a good looking lad of 23 years of age. He is still helpless in the legs, but has improved considerably since last year, and the doctor thinks he may ultimately recover. He was bright and cheery, and exhibited to me his tortoise-shell and coco-nut carvings. His name is Amrye. A galvanic battery has been ordered for his cure, and it is hoped he may benefit by it.

12. I made many enquiries from various sources in the two villages, but could learn of no cause of complaint or discontent. I visited the Imaum and headman of each village, and appointed a time and place, of which due notice was given, for any one to come and see me who wished to say anything. In response, the two Imaums and two headmen came, as a matter of politeness, but had nothing further to say; six Bantamese, however, came forward and asked to be sent to Batavia. All were three-year contract expired men, two had cleared their debts, the other four had not, but Mr. Sidney Ross assured me that they would be sent back to Batavia, when opportunity offered. It might have been possible to take back two or three single men in the "Iphigenia," but as they were married men with families it was out of the question, and they expressed themselves willing to wait. They made no sort of complaint that they were detained.

13. The export during the year has been of copra only, and amounted to 777 tons 5 cwt. News of the amount realized had not reached Mr. Ross when I left, but it was expected to fetch about £12 per ton.

The copra in stock was 500 tons. The copra from these Islands, I am told, is used largely in the composition of soap. There were no imports, except of the usual supplies, and of hard wood from Christmas Island.

14. I append a table (II) * showing the maximum and minimum readings of the barometer and thermometer since 1894, with some remarks as to the weather. It is to be noted that all readings taken up to the end of August, 1896, were taken between 6 A.M. and 7 A.M. Since then, they have been taken three times a day, viz., between 6 A.M. and 7 A.M., noon and 1 P.M., and 4 P.M. and 5 P.M.

The prevailing winds are from E.S.E. There appears to be little or no dewfall, at any rate at this season of the year. Rollers coming into the lagoon from the N.E. and E. are alone dangerous to ships at anchor within the lagoon. Their occurrence is more frequent than the records show, but they are not easy of observation from New Selma. The hottest month of the year under report appears to have been March last, when the maximum and minimum morning, noon, and evening readings of the thermometer were as follows :—

Morning.		Noon.		Evening.	
Maximum.	Minimum.	Maximum.	Minimum.	Maximum.	Minimum.
82	73	92	77	86	80

During our stay the climate was delightful, and a sun-hat unnecessary.

In June last a large meteor was seen to trail across the lagoon from N.E. to S.W. It was so close that it was heard to swish through the air.

15. A visit to the North Keelings was not to be thought of. The landing, if possible at this time of the year, is fraught with danger.

The Island is uninhabited, and nothing was to be gained by my visiting it. It lies 15 or 16 miles away to the north, but it was not sighted either on approaching or leaving. During my stay, Mr. Sidney Ross piloted me over to West Island, five or six

* Not printed.

miles across the lagoon. After landing we walked about two miles through the coco-nut plantations, skirting a sort of inner lagoon, to a copra storehouse, near which are about 20 huts: these are used by the gangs sent over to work week by week. A good working gang usually completes its allotted task of husking, &c. by Friday, they then have Saturday and Sunday free, and generally return to their homes in New Selma. The clusters of coco-nuts on this Island appeared to be very thick and the trees to be doing well. I noticed at one place the branching palm which bears no fruit; it is described by Mr. Forbes in his book of travels in the Malay Archipelago (and indeed for almost any information with regard to these Islands, Mr. Forbes's book should be consulted). The coco-nuts are husked under the trees, and the husks left to assist in manuring the soil. Only a few women and girls were in the huts when I visited them: all expressed themselves content and happy; indeed on this and other occasions it was hardly necessary to ask the people as to their condition. Their bright pleased look when accosted by Mr. Sidney Ross was evidence of their contentment, and he seemed to be as much loved and respected as his father.

16. I could find no evidence of any crime whatever.

The Cocos Imaum had but an indistinct recollection of any trial. Mr. George Ross and Mr. Sidney Ross both assured me that, except for a little fruit stealing by lads, there had been no kind of crime for years.

The system that has been pursued in former years, but which, in the absence of crime, has undergone no serious test, is described by Mr. Keyser. It really seems to have amounted to a calling together of the elders of both communities, some 24 in number, with Mr. Ross as their president, to try the accused.

The accused was allowed to challenge any of his judges, and if he could show cause why any of them might be biassed against him, his objection would be allowed to prevail. After deciding on the objection, if any, some twelve, but apparently not all the elders, would be sworn to administer justice, though all took part.

The absence of crime is very remarkable. It is probably due to the great influence of the Ross family, assisted by other causes, such as constant work, the publicity of everything that goes on in the Island, and the absence of competition and of temptation.

No record of any trial or crime has been kept.

As regards civil disputes, Mr. Sidney Ross could only tell me of one instance; it arose on the will of a man, written in pencil, who died some time back, and by which he bequeathed the

house and property on which he lived to one out of two daughters. A dispute arose between the daughters, but Mr. Ross quickly disposed of it by pointing out that, even if the will was good, the man had no power of disposition over property which did not belong to him.

By Mr. George Ross's permission, the sisters now live together in peace on the same premises.

There was also a matrimonial quarrel where a husband had accused another man of being too intimate with his wife. Nothing, however, came of it, for the man was unwilling to divorce his wife, who appeared to have been the temptress.

I should be loath to suggest, at present, any State-interference as regards the administration of justice in a village community which, for so many years, has been governed so ably and with results so satisfactory.

With regard to the morality of the people, as far as I could learn, there has been no pretence that immorality did not exist, but prostitution and venereal disease locally contracted are unknown. Unions, however, have been known which are not sanctioned either by the Imaum or Registrar of Marriages. The rtory of secret toddy drinking, however, prevails.

17. Sheep, goats, and pigs have all died off. Such grass as there is, is very coarse, and not fit for food, and only grows under the coco-nut trees, where it is not wanted.

The rat nuisance continues here, but this rat must not be confounded with the Christmas Island species (*Mus Macleari*). Centipedes, scorpions, copra-bugs, white ants, red ants and flies (*Cantharides*) are numerous, and there are a few moths and butterflies.

Grey and red mullet from the mud off West Island, flying-fish, snappers, and a sort of rock perch form a pleasant variety of fish food.

Isinglass was coming ashore in great quantities during our visit.

Frigate birds, boobies, and gannets abound, but are not so much in evidence as on Christmas Island.

I noticed the Java sparrow on several occasions in the coco-nut plantations, where I also saw the air-plant in flower.

A few pigeons and ground thrush (*Turdus erythropleurus?*) from Christmas Island have been imported and are doing well, and on Horsburgh Island a couple of canvas back duck (male and female) (local *blebis*), which arrived in a gale some years back, increased to twenty, but they are now reduced to seven only.

Here also is found the white tern or noddy, about which much has been said. Mr. Forbes identifies it as the *Gygis candida*, and describes its habits of laying its eggs thus :—"Its solitary egg is deposited on the leaf of a young coco-nut palm, at the time when the leaf has rotated from its vertical position to one nearly at right-angles to the stem. * * * * * * * The egg is laid in the narrow angular gap between two leaflets on the summit of the arch of the leaf, where it rests securely, without a scrap of nest, in what one would think the most unsafe position possible, yet defying the heaving and twisting of the leaves in the strongest winds. The leaf, as in all palms, goes on drooping further and further till it falls ; and among the settlers it is a subject of keen betting, when they see a tern sitting on an ominously withered leaf, whether the young bird will be hatched or not before the leaf falls. The result, I am told, has always been in favour of the bird ; if the leaf fall in the afternoon the tern will have escaped from the egg in the morning."

I was much interested in this account, but on enquiring from Mr. Sidney Ross, a keen observer, he told me that the true story was that as a rule the leaf did not fall till the young had learnt to fly. He made no mention of any betting on the subject, and I suspect that one instance of such a case has grown into a generality. So far as I could gather, the *locus* of the egg deposit is not confined to young palms. The bird breeds chiefly on Horsburgh Island, where observation, except at certain seasons of the year, is improbable. It would be interesting to know whether Mr. Forbes's account is given from personal observation or hearsay.

As to the identification of the bird, it is remarkable that neither Mr. Forbes, nor the records of H.M.S. "Challenger," nor Cassell's Natural History—both of which latter books speak of the bird as inhabiting Ascension Island and the South Seas—though otherwise describing the bird accurately as a beautiful, small white tern or noddy, with black eyes, make any mention of the beautiful purple blue of the beak up to the nostril ; the feet and tarsus (instep) are also purple blue with a white webbing, though the colouring is duller than the beak. Through the kindness of Mr. Sidney Ross, who sent a boat for the purpose, and with the assistance and skill of Paymaster Morton (a keen sport), I was lucky enough to procure specimens of the male, female and young, and two of the eggs : the egg has a dullish light ground with brown speckles.

The male and female are now set up at Raffles Museum. The skin of the young was too far gone for stuffing.

The young bird had some brown on its back and wings. Two or three hours after the birds were shot the colour of the beak and feet had died away, and the rapidity with which the colour disappeared may account for the non-mention of it by others, who

may not have got close enough to see the bird in life, or who have not seen the bird soon enough after death.

I also obtained the egg of the black tern or noddy (*Sterna melanogaster ?*); an egg of each bird has been sent to the Museum. At Mr. Ridley's request, I also obtained a specimen of a deep-coloured hard wood (*Cordia*).

18. I was shown a great variety of coco-nuts, some of which had three or more ovary cavities, and some of which were only partially developed. They are well described by Mr. Forbes. I also procured two specimens of a coco-nut, which is supposed to be a distinct kind. It is called locally the "Winged Coco-nut." Mr. Birch evidently refers to the same nut and calls it the "Ram's horn Coco-nut." I saw one of the trees on which they grow, and all nuts on that tree assumed somewhat the same shape, but one of my specimens is undeveloped. The winged species has three distinct nuts something in the shape of ram's horns, all united together. I have sent them to Mr. Ridley for identification.

I procured a few corals and shells for the Museum; the latter are chiefly of the cyprœa or cowry class. Mr. Hanitsch has kindly identified them. (*See* Table III annexed.)

19. Mr. Sidney Ross expressed a hope that the next time a ship was sent she might be sent in September; he asserts that the sea is always calmer at that time of the year, and that the Trade Wind blows with much less force, and squalls are absent. I noticed, however, that when Mr. O'Connor visited the Islands in H. M. S. "Rattler" in September, 1887, he records that the weather was "very boisterous and squally, much against our "going about the Islands." On the other hand, from the records for September, 1894, 1895 and 1896 (*see* Table II *) it would appear that the weather was fairly settled.

During our stay huge rollers were observed between the north end of West Island and west end of Horsburgh, showing the danger it would be for ships lying where the "Iphigenia" was, if the direction of the rollers had been from the north-east or east.

Captain Dudding seemed to think that a smaller ship would serve the purpose better, and be able to get to the inner anchorage without that risk which a ship like the "Iphigenia," 300 feet long, and drawing over 20 feet, must necessarily run, if she attempted to do so. The inner anchorage is protected from rollers and would be an economy in the way of coals. Where the "Iphigenia" lay, she had to keep up steam all the time.

20. I had an opportunity of witnessing the dances referred to by Mr. Keyser. The last evening we were there, Captain Dudding and the ward room officers were invited to dinner at

* Not printed.

the family house. The villagers were all invited to come at 9 P.M. The native dances were of three kinds :—

(1) The *malengo* or posturing and scarf dance to the accompaniment of a song and drum, performed by men, but the Interpreter told me it was different to anything he had seen previously.

(2) A dance performed by men and women.

It is danced in pairs. Each partner stands opposite the other on either side of the room, a violin strikes up a sort of double shuffle air, and the partners advance and retire with double shuffle step and a gentle seesawing motion of the body, and finally cross in serpentine line and then repeat the operation again and again. The girls dance gracefully and quietly. The men were more energetic and noisy. It is a taking and most popular dance, and was repeated frequently during the night.

The third dance is something like the Sir Roger de Coverley, and danced to much the same air. It is too intricate to describe, but I noticed it was the only dance in which partners took hands or clasped one another ; its origin appeared to be European. The dances were chiefly confined to Cocos-born people, but one or two of the Bantamese bucks joined in, and the officers of the ship were gratified with waltzes and lancers. The dances were kept going all night, and it was certainly a most interesting sight.

21. Mr. Sidney Ross was unremitting in his kindness and attention and in affording me every facility in my enquiries. The kindest hospitality was shown to me by him and his sisters ; each member of the Ross family helped to make my stay thoroughly enjoyable.

22. We left the Keelings on Saturday evening, July 24th, and, after a run of 600 miles and an uncomfortable passage, reached Java Head early on Tuesday morning, 27th, the remaining distance to Tanjong Priok, Batavia, 130 miles, was accomplished by 3.30 P.M.

23. After staying at Batavia till Saturday morning, 31st July, we again weighed anchor, and reached Singapore at noon on the 2nd August, after a run of 620 miles. The whole voyage covered over 2,490 nautical miles, or say 2,800 ordinary miles.

24. In conclusion, I desire to express my appreciation of the great kindness, judicious hospitality, and constant attention that I received on board ship from Captain Dudding and every Officer of the ship.

ANDREW J. LEACH.

Singapore, 21st August, 1897.

TABLE I.

POPULATION.

Nationality.	No. in June 1896.	Alterations since June, 1896.				Total, July 1897.
		Births.	Arrivals.	Deaths.	Departures.	
Cocos men,	101	—	—	8	—	93
„ women,	109	—	—	5	—	104
„ boys,	85	18	—	8	—	95
„ girls,	108	15	—	5	—	118
Bantam men,	54	—	14	3	3	62
„ women,	44	—	1	1	2	42
„ boys,	52	8	—	1	5	54
„ girls,	41	5	—	2	1	43
Total	594	46	15	33	11	611

TABLE III.

FROM CHRISTMAS ISLAND.

Shells.

Cyprœa mauritiana.
„ caput serpentis.
„ species (?)

FROM KEELING-COCOS.

Shells.

Cyprœa tigris.
„ mauritiana.
„ arabica.
„ cameola.

TABLE III.—*cont.*

FROM KEELING-COCOS.

Shells.

Cyprœa vitellus.
„ lynx.
„ helvola.
„ madagascariensis (?)
„ 2 species (?)
Strombus certiginosus
„ species (?)
Bulla ampulla.
Trochus nitolicus.
Conus petrœus.
Conus sp. ?

Corals.

Madrepora elathrata.
„ (species ?)
Stylipora palmata.

COLONIAL REPORTS—ANNUAL.

No. 257.

COCOS-KEELING AND CHRISTMAS ISLANDS.

REPORT ON THE ANNUAL VISIT FOR 1898.

(For Report for 1897, *see* No. 216.)

Presented to both Houses of Parliament by Command of Her Majesty.

February 1899.

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ANNUAL.

No.	Colony.	Year.
226	Bechuanaland Protectorate	1896–97
227	Leeward Islands	1896
228	Bermuda	1897
229	Gambia	,,
230	Turks and Caicos Islands	,,
231	Barbados	,,
232	Lagos	,,
233	St. Vincent	,,
234	Sierra Leone	,,
235	Falkland Islands	,,
236	Straits Settlements	,,
237	British New Guinea	1896–97
238	Bahamas	1897
239	St. Lucia	,,
240	St. Helena	,,
241	Trinidad and Tobago	,,
242	British Honduras	,,
243	Malta	,,
244	Fiji	,,
245	Hong Kong	,,
246	Leeward Islands	,,
247	Grenada	,,
248	Gibraltar	,,
249	Gold Coast	,,
250	Mauritius and Rodrigues	,,
251	British Solomon Islands	1897–98
252	Seychelles	1897
253	Labuan	,,
254	Ceylon	,,
255	Basutoland	1897–98
256	Newfoundland	1896–97

MISCELLANEOUS.

No.	Colony.	Subject.
1	Gold Coast...	Economic Agriculture.
2	Zululand	Forests.
3	Sierra Leone	Geology and Botany.
4	Canada	Emigration.
5	Bahamas	Sisal Industry.
6	Hong Kong	Bubonic Plague.
7	Newfoundland	Mineral Resources.
8	Western Pacific	Solomon Islands.
9	Dominica	Agriculture.
10	Virgin Islands	Condition during 1897.
11	Grenada	Agriculture in Carriacou.

No. 257.

COCOS-KEELING AND CHRISTMAS ISLANDS.

(For Report for 1897 *see* No. 216.)

Acting-Governor Sir J. A. Swettenham to Mr. Chamberlain.

Government House,
Singapore,
15th December 1898.

Sir,

I have the honour to forward six copies of a report by Mr. R. J. Farrer, of the Straits Civil Service, on his visit to Christmas and Cocos-Keeling Islands.

2. It appears from his report that no phosphate has been exported from Christmas Island since Mr. Justice Leach's visit in 1897, but it is to be hoped that Mr. Ross's visit to England will settle the policy of the company and enable the phosphate industry to be developed within a reasonable time.

3. Unless, however, some arrangements can be made for increasing the supply of labour, the development of the resources of Christmas Island must necessarily be slow.

4. It is satisfactory to find that neither on Christmas or Cocos Island were there any complaints made to the Commissioner, and that the inhabitants appear to be contented with the régime under which they live.

5. The indifference shown by the people to the advantages of education is hardly to be wondered at, but it must be disappointing to Mr. Ross that his efforts to maintain the school have proved so far a failure.

6. Although the number of Cocos-born inhabitants has slightly increased, the population remains nearly stationary.

7. It was unfortunate that Mr. Ross should have been absent when Mr. Farrer visited Cocos Island. Of the hospitality of the Ross family Mr. Farrer speaks warmly, and also expresses his gratitude to Commander Winnington-Ingram and the officers of H.M.S. "Daphne" which conveyed him to the Islands.

I have, &c.,

J. A. Swettenham.

1576—800—1/99 Wt 21935 D & S—5 (B)

Cocos-Keeling and Christmas Islands, 1898.

REPORT ON VISIT TO CHRISTMAS AND COCOS-KEELING ISLANDS.

Bukit Mertajam,

31st October 1898.

Sir,

I have the honour to report that, in accordance with your instructions, I embarked on September 4th on board the M. M. Str. "La Seyne" and proceeded to Batavia, where I joined H.M.S. "Daphne," Commander C. Winnington-Ingram, on September 6th.

2. Owing to the festivities connected with the coronation of Her Majesty the Queen of the Netherlands, and the consequent dislocation of the labour market, we were unable to obtain a proper supply of coal before September 9th, on which day we sailed from Tanjong Priok at 2 p.m. for Christmas Island.

3. After an uncomfortable passage, with the wind nearly straight ahead, we reached our destination on September 11th at 5 p.m. and anchored in Flying Fish Cove.

4. Mr. Andrew Ross, who is still in charge of the Island, came off to meet us, and to give Commander Winnington-Ingram the benefit of his local knowledge of this peculiar anchorage.

5. In the cove were lying at anchor the yawl "Tweed" and the yacht "Clunies Ross," both of which had recently arrived from the Cocos Islands, the former with Mr. Ross on board *en route* for England.

6. Commander Winnington-Ingram and myself landed and called on Mr. Ross. I delivered to him the presents entrusted to my charge. He expressed himself as much pleased with them, and especially with the box of seeds and Forbes's "Wanderings." We were able to give Mr. Ross the first news of the outer world that he had received since May. We returned on board H.M.S. "Daphne" for the night.

7. On the 12th we landed, accompanied by several of the officers (on pleasure bent), and after some conversation proceeded to walk up Phosphate Hill with Messrs. George and Andrew Ross.

8. The fertility of the Island has been so fully described in former reports that little need be said on this head. Mr. Ross's only complaint against the soil was that it was too fertile, and enabled some plants, such as the papayah, to multiply until they became a nuisance. The young coconut trees which are planted in ground formed of fragments of coral, and are growing along the shore of Flying Fish Cove within four or five yards of high-water mark, look remarkably healthy and seem in no way affected by the violence of the north-west monsoon, which is said to

prevail here for six months in the year. In this respect they form a striking contrast with the trees growing on the south-east and east shores of the Cocos Atoll, which are, without exception, stunted and deformed through the violence of the wind.

9. Mr. Ross informed me that no phosphate had been exported since the visit of Mr. Justice Leach in 1897. The truth of this statement seems to be conclusively proved by the following circumstances :—The beds of phosphate are situated at an elevation of about 1,000 feet, at a distance of some two miles from the shore. They are reached by a cutting through the jungle, which is ended at its lower extremity by a shoot perhaps 200 feet high. The clearing has been completed as far as the deposits, but for the greater part of its course is encumbered with logs and trunks of trees which have not yet been destroyed. These obstacles to locomotion entirely do away with the idea that any quantity of phosphates could be brought down to the sea with a limited number of coolies as the only means of transport. Secondly, the phosphate on reaching the lower end of the clearing would have to be dumped down the shoot on to the small level space below. This proceeding would inevitably leave its traces in the form of dust and débris of phosphate at the bottom of the shoot, and of these I could see no sign.

10. Mr. Ross's plan for working the phosphates is to construct a light railway worked by a wire hawser along the line which has been cleared. With this object in view the line has been laid out with three angles so as to give the required gradients. The phosphate being brought down in trucks to the end of the rails would be tipped down the shoot to a level space at the bottom, where it would be stored. The work of getting and storing would be pressed on during the prevalence of the north-west monsoon, when it is impossible for ships to remain at anchor near the island. During the rest of the year the loading of the deposits would be carried on by means of an artificial shoot descending from the edge of the cliff to the level of the ship's deck.

11. The dumping ground is an elevated plain about 200 yards long ending in a cliff which descends sheer into the sea. This cliff is about 40 feet high. It is, therefore, necessary for the carrying out of Mr. Ross's plan that some sort of pier should be constructed both for the support of the shoot and for the mooring of the ships.

12. One of the reasons for Mr. Ross's impending visit to England is to arrive at an understanding on the subject of this pier. Mr. Ross is in favour of a wooden jetty, the framework only of which would be left in position during the north-west monsoon. The materials for such a work are ready at hand on the Island. The London Directors, on the other hand, wish the pier to be of steel. A pier of this material, Mr. Ross maintains, would be very expensive, and could not stand the tremendous blows of the sea during the bad season, and, further, could not, if damaged, be repaired from local resources.

13. Mr. Ross has a further point of disagreement with his co-Directors, who, I understand, tempted by the present high price of phosphates, have sent an emissary to the East with orders to charter a vessel immediately. There is, however, no phosphate ready for loading, and Mr. Ross, not unnaturally considering his recent losses, wishes to keep down the expenditure to the necessary minimum until the business begins to be reproductive.

14. It is greatly to be hoped that Mr. Ross's present visit will finally settle the policy of the Company, since the existing state of uncertainty prevents the general development of the island besides impeding the progress of the phosphate industry.

15. Apart from these differences of opinion, the chief obstacle to be overcome by the Company is the difficulty of obtaining a sufficient supply of labour. The number of coolies that Mr. Ross has been able to obtain from Java during the past year is only 14. In addition to these he has introduced eight new Cocos boys. These, together with the nine Cocos boys left from 1897, give a total of 31 men for all kinds of labour. Mr. Andrew Ross, however, informed me that the greatest number of coolies employed in any one day on works connected with the phosphates was 16. The progress of the works cannot, therefore, be rapid under existing circumstances.

16. In spite of the scarcity of labour the clearing has been completed right up to the phosphate beds. About a quarter of a mile of it has been stubbed and levelled and is ready for ballast laying, while another quarter of a mile is in process of being levelled. At this part the bed which is being levelled is formed of marble, so that the work is of a very troublesome character.

17. The present gang of Bantamese coolies arrived in September 1897. They are on a three years' agreement and receive 8*f.** a month, with salt and seven bamboos of rice per week free. Their hours of work are from 6 to 11 a.m., and from 1 to 4 p.m. Each of these men received an advance of 50*f.* on engagement. All of them have repaid this advance, and some have already 15*f.* to their credit. For these facts I am indebted to Mr. Andrew Ross. Unfortunately, an examination of the books was impossible, owing to Mr. Wilkinson's absence with the keys of the store, at the time when I asked to be allowed to examine the books. This was at the close of my visit, so that there was no time to send for the keys.

18. Mr. Ross stated that each Bantamese cost him on an average 30*f.* a month, including transport, &c., but not supervision. Taking the value of the free rations at 5*f.* per mensem (paragraph 49 of Mr. Trevenen's report), the incidental expenses would amount according to this statement to 17*f.* per mensem, a sum which seems extraordinarily high considering that though drugs may be a slight expense medical advice costs nothing.

* COLONIAL OFFICE NOTE: The sign *f.* signifies guilder. The Dutch guilder is worth about one shilling and eightpence. The Cocos currency guilder, which is a sheepskin note, is worth five-sixths of a Dutch guilder.

19. From Mr. Ross's remarks I gather that the Bantamese are a troublesome lot and need careful handling. They are under the supervision of the Cocos boys, each of the latter being told off to keep an eye on one man. Mr. Ross's view that the absence of crime is due to fear of consequences, and not to the natural piety of the men, is strongly borne out by the story that Mr. Wilkinson, the Engineer, had a narrow escape of being murdered or seriously injured by one of the Bantamese during the past year.

20. The permanent population at the present moment is as follows :—

Mr. and Mrs. Wilkinson and daughter ...	3
Mr. and Mrs. Andrew Ross and son	3
Female servants	2
Male servant	1
Cocos boys	17
Wives of Cocos boys	2
Children of do.	2
Bantamese coolies	14
Total ...	44

There have been no births or deaths during the last 14 months.

21. Mr. Ross stated that he had offered to bring the wives of the Bantamese, but that the men thought it not worth while to bring them for so short a time as three years. He added that he would be glad if there were more women on the Island, since their presence contributed to the contentment of the men.

22. It is Mr. Ross's policy to increase as much as possible the number of Cocos boys on the Island, for the reason that their living here prevents those early marriages to which he attributes the physical degeneration of the Cocos breed. (Of the 17 "boys" now on the Island 15 are from 12 to 15 years of age, the remaining two being middle-aged foremen.) The labour needs of the Cocos Islands are, however, his first consideration, and this prevents his removing Cocos boys in large numbers.

23. Since Mr. Justice Leach's visit the source of the waterfall has been discovered to be a stream flowing without much variation of volume all through the year. I was informed that the water had been examined by Mr. Andrews (of the British Museum) and pronounced to be of excellent quality. I was unable to obtain a sample, owing to the shortness of the time at my disposal. The distance of the stream from the anchorage makes it useless for the present, but in view of the probable development of the Island in the future, the discovery of a supply of good water at a distance from the shore becomes an important fact.

24. A second anchorage has been found during the last few months. This is situated on the south-east side of the Island across which a clearing has been made, so as to form a connection with it. It can be used when the Flying Fish Cove anchorage

is closed, and only then—that is, when the wind is westerly of north-east and south-west. The new anchorage may prove a material factor in the prosperity of the Island in a few years' time, since the bottom gives a much better holding ground than that at the old anchorage, being of braincoral with a waved surface and gentle slope outwards, as compared with a violent incline downwards and a bottom in which ledges of sharp rock are too common for the safety of the moorings. Its importance will, I believe, depend on the agricultural development of the Island, not upon the export of phosphates.

25. Towards the end of my visit I had the coolies collected and tried to find out whether there were any grievances of which they might wish to complain. It could not of course be expected that they would unbosom themselves to an entire stranger, but from the heartiness with which they made answer "All is well," I was convinced that they felt at all events no serious discontent with their surroundings.

26. The Bantamese are mostly of a villainous appearance. The Cocos boys on the other hand struck me as looking stupid, and indifferent to their surroundings. A look of dulness is perhaps only a natural result of the monotony of their lives, and of the reduction of the struggle for existence to near vanishing point, but I was told that they sing and dance with much energy in the evenings, while their leisure hours of daylight are occupied by the sailing of toy-boats.

27. The Bantamese occupy one large hut, which is almost filled up by their beds and mosquito nets. The hut, however, is clean, and the air inside it fresh, the side walls being made of the mid-rib of the coconut leaf which has the merits of being easily cleaned, and of smelling sweet (at least while it is fairly new), while the air can pass freely through the interstices.

28. Owing to the immaturity of the coconut trees toddy is, strictly speaking, not yet to be obtained. The toddy drinkers are therefore driven to procuring a substitute from the katapang (a kind of filbert nut), a practice which, I understand, obtains also in Malacca.

29. The rats show no signs of dying out. While sitting in Mr. Ross's house in the evening we were informed that certain very violent chatterings were the objurgations of a rat disputing over a ripe fruit with one of the large bats peculiar to the Island. The contending parties often come to blows, or rather bites, with the result that both of them fall from the branch where hangs the prize. Mr. Ross's dogs have learnt this fact, and now on hearing a dispute scurry off and post themselves under the branch occupied by the combatants to wait for their fall.

30. A striking feature of the Island is the obesity of its *feræ naturæ*. Rats, bats, and boobies all go to the melting pot and produce each their own kind of oil. The size and fatness of the bats may be judged from the fact that only six are required to

make one soda-water bottle full of oil. The large crabs, too, provide an oil, extracted without any boiling down process, which is mainly used for the preservation of metal work.

31. The boobies, Mr. Andrew Ross stated, make a pie equal to the finest beefsteak. It may be, however, that Mr. Ross's patriotism has blunted his palate, for his statement was not borne out by those of the visitors who were privileged to taste this rare dish.

32. The healthiness of the Island has been often mentioned: two instances will here suffice, viz., the little daughter of Mr. and Mrs. Wilkinson, who arrived in very poor health, apparently a weakly baby, and is now healthy and vigorous; and a kid left some time ago for the sake of its health which has grown into a fine she-goat.

33. Owing to the fertility of the Island and its tendency to encourage any objectionable form of life, Mr. Ross is afraid of experimenting in the planting of grass seeds. He has, I think, apprehensions that a seed or two of the dreaded "lalang" may have crept into the seed box.

34. The fish that are to be caught are few both in kind and number, snappers, rock-cod, and a few varieties of coral-feeding fish being the only kinds obtainable. This scarcity is probably due to the absence of any shallow water which could form a breeding ground for the adults or a nursery for the young.

35. Mr. Andrews, whose impending arrival was mentioned in last year's report, left some time ago for the Cocos Islands. According to Mr. Andrew Ross, the meteorological instruments received some damage while in his keeping, so that the records are no longer kept. I am therefore unable to give the usual table.

36. Shortly before our departure the sportsmen returned with numbers of Pergam pigeons. These birds are no less tame than in former years.

37. About 4 p.m. on the 12th September we sailed for the Cocos Islands, with the wind on the port quarter.

COCOS ISLANDS.

1. After a passage of 66 hours, uneventful except for the discomfort of the last 24, we arrived at the Cocos Islands at 10 a.m. on September 15th, and anchored in the usual place under the guidance of Mr. William Ross.

2. After an early luncheon Commander Winnington-Ingram and myself landed. We were most hospitably received by the ladies of the Islands, and lodged in the bachelors' quarters.

3. Mr. Sidney Ross, the heir apparent, was engaged on West Island in superintending the storage of copra, and was unable to return until the next day.

4. In the afternoon we walked through the Cocos village which preserves that air of cleanliness and prosperity on which comment has so often been made. The men were away at work, we had therefore no opportunity of conversing with them that evening. The children struck me as very numerous, possibly owing to their being so much in evidence with their toy-boat races along the shore.

5. The next morning, accompanied by one of the officers, I walked through the Bantamese village, and met one grumbler, whom I suspect to be the man mentioned in Mr. Egerton's report, his grievances being of exactly the same nature, except that the number of children had increased. His complaints were, in brief, that he could not save money to enable him to return to Java, and that he had no time to catch fish. Of these statements the first is disproved by a glance at the list of wages, the second by the fact that we found him engaged in smoking a pipe on his door-step at 7.30 a.m. In the course of our walk we met a girl who was suffering from some kind of paralysis of the legs, which she told me came on after child-birth. We comforted her with the assurance that the ship's doctor would visit her. With these two exceptions, the people seemed healthy and contented.

6. Later in the morning we took a second walk through the main village and spoke to a large number of persons, mostly of the female sex, the men being at work. Among others we interviewed the daughter of Pa Besar, deceased (herself, I understood, a great-grandmother), a typical instance of contented old age, who presented us with roses and polished fish eyes. During our numerous conversations both on this and subsequent occasions, I heard no word of complaint against the system of government, and though recognising the tendency of natives to conceal their feelings from strangers, I am convinced, from the freedom with which the people talked about all kinds of topics, that they would have mentioned their grievances had they felt any.

7. On visiting the school we found but one scholar, the grandson of the Imam. The others it was said had dropped off one by one, and no new recruits had presented themselves. The scholar seemed an intelligent youth, reading and writing easily and well and showing accuracy in elementary arithmetic, while he also had a fair idea of the position on the map of the more important countries of the world, including his own. This, however, is anything but a gratifying result of the trouble and expense to which Mr. Ross has been put in connection with the school and its master. (The wages of the latter are 6*f.* a week.) The attitude of indifference to education which the people hold seems to be due to their inability to see that any material advantage is to be gained by the acquisition of a knowledge of the three R's. Only a very small proportion of the Cocos people make their homes in other countries; the bulk of them do not look forward to ever leaving the Islands, where under existing circumstances the power of reading and writing adds not a cent to the

earnings of the labourer. The fact that all the Cocos boys are anxious to go through the practical education of the workshop shows that it is not mere idleness that hinders the spread of education. The children can, of course, be reached only through the parents, and the indifference of these last to the welfare of their children would form an obstacle to the elevation of the children by education even if the advantages of study were obvious.

8. From the school we went to the house of the Imam, whom we found suitably engaged in studying Mohammedan law, an occupation which would seem lacking in practical utility in view of the disregard for religion shown by his flock. He proved to be a pronounced optimist regarding the spiritual welfare of his congregation, making, among others, the astonishing statement that there was never any difficulty in obtaining the necessary attendance for the Friday service. The day being Friday and the hour of prayer being near, the total absence from view of any other male adult gave reason to doubt the truth of this statement, and I was subsequently informed by Mr. Sidney Ross the people care as little for religion as for education, being satisfied with one annual attendance at the mosque.

9. The following table, supplied by Mr. Charles Ross, shows the changes of population since the last visit :—

Cocos born.

——	July 1897.	Births.	Deaths.	Arrivals.	Departures.	Sept. 1898.
Men	93	—	2	2	—	93
Women ...	104	—	2	—	—	102
Boys	95	15	6	—	—	104
Girls	118	13	5	—	—	126
Total ...	410	28	15	2	—	425

Bantamese.

——	1897.	Births.	Deaths.	Arrivals.	Departures.	Total.
Men	62	—	5	1	9	49
Women ...	42	—	—	—	5	37
Boys	54	7	3	—	2	56
Girls	43	6	3	—	1	45
Total ...	201	13	11	1	17	187

	1897.	1898.
Total Population	611	612

In the total 612, are included the 17 Cocos boys who are at present working on Christmas Island.

The actual population is, therefore, 595.

There have been seven marriages of Cocos persons and eight of Bantamese during the past 14 months.

The causes of death are said to be, in the case of the men, dropsy; of the women, the effects of child-birth; of the children, as usual, infantile complaints.

10. It is Mr. Ross's belief that the race of the Cocos-born is degenerating. The younger generation is certainly inferior in height and bone to the older, but the latter are, of course, the survivors, and presumably the pick of their own generation; and, secondly, the exceptional physique of the older generation is probably in a large degree due to the strains of Zulu and Negro blood which flow in the veins of all the Cocos race, and which must become weaker with each successive generation when, as frequently happens, a Cocos man takes a Bantamese wife. It seems questionable whether, apart from the diminution in stature, any signs of degeneration are perceptible, for in muscular development the younger men reach a high standard and compare very favourably with those of Province Wellesley, while the women are almost invariably far taller and more powerfully built than their sisters of the Peninsula.

11. Surgeon Trythall, R.N., visited the villages on three occasions. I avail myself of his observations without further acknowledgment.

12. He treated three cases of paralysis of the lower extremities in women after child-birth, one in the Cocos, and two in the Bantamese village. This affection Mr. Charles Ross believes to be due to toddy drinking. The symptoms first appear about a month after delivery. The child of one of these women was suffering from a strumous skin disease. Surgeon Trythall also treated a case of endo-metritis, and prescribed for one of the Ross family who was suffering from slight functional disease of the liver, complicated by asthma. These were the only new cases of illness.

13. The paralysed boy Amrye is gradually regaining strength. He can now raise himself without help to a sitting position. The galvanic battery ordered for his use has not yet arrived. This is a pity, since the battery would be useful in the apparently frequent cases of female paralysis.

14. Abortives are freely used. They are obtained from one or two old women, who get their drugs from Java and keep the composition of their prescriptions secret. It is to be hoped that the knowledge of these drugs will be lost when the old wives die.

since their use is decidedly harmful and may well be one of the causes of the high death-rate among infants.

15. The mothers show a great lack of parental affection. The children are left very much to take care of themselves, and the infants, until the long-delayed time of weaning arrives, are fed at very irregular intervals.

16. The people greatly prefer native to European medicines, and dose themselves with concoctions which are often entirely unsuited to their complaints. This may be the reason why the women lose their looks so early. At 25 many of them look quite 10 years older.

17. The water supply has given little difficulty since the burial ground was shifted from Settlement to Burial Island. The wells are from 5 to 10 feet deep and the water is of fair quality, but this year, owing to the prolonged drought, many of them have become temporarily brackish. The Ross family obtain their drinking water from Horsburgh Island.

18. The weather during the past year has been noticeable chiefly for a prolonged drought, which lasted for over six months, and was followed by a long period during which the rainfall was below the average. This makes the second year in succession in which there has been a deficiency in the rainfall, and the result has been that Mr. Ross's vegetable garden is almost ruined. The effect on the coconuts has fortunately not been so serious, but the number and size of the nuts has diminished.

19. In February 1898, the barometer went down to 29·45° and it was fully expected that a cyclone would burst over the Island. Fortunately, however, though a cyclone must have been raging within a short distance the island escaped untouched.

20. I give a table of barometrical readings &c. These are taken three times a day, whenever possible, by Mr. Sidney Ross :—

1897.	Barometer.		Thermometer.		Prevailing Winds.
	Maximum.	Minimum.	Maximum.	Minimum.	
July ...	30·05	29·91	87	76	E.S.E. S.E.
August ...	30·07	29·92	87	74	Do.
September	30·12	29·90	87	75	S.E. to N.E.
October ...	30·15	29·90	85	74	S.E.
November	30·05	29·90	86	76	S.E. E.
December	30·03	29·87	87	74	S.E.

1898.	Barometer.		Thermometer.		Prevailing Winds.
	Maximum.	Minimum.	Maximum.	Minimum.	
January ...	30·01	29·87	86	71	S.E. S.W.
February...	29·96	29·45	86	73	S.E. N.W.
March ...	29·98	29·81	86	73	S.E.
April ...	30·04	29·86	98	75	S.E. to N.E.
May ...	30·03	29·87	91	76	S.E.
June ...	30·02	29·77	87	73	S.E.
July ...	30·04	29·87	88	75	S.E. E.N.E.
August ...	30·08	29·93	87	75	E.S.E. S.E.
September	30·08	29·92	90	75	S.E. N.E.

21. A really still day is almost unknown. When the waters of the lagoon are perfectly calm the women refuse to do anything but admire their reflections in the water.

22. The copra exported in 1897–8 amounted to 826½ tons, valued at nearly £13 per ton. The bulk of the copra is made on West Island, the nuts on Settlement and the adjacent islands being, for the most part, consumed in various ways by the inhabitants.

23. The number of men permanently employed on West Island is 10, but at the present time 14 are there employed. These men usually live on the Island from Monday to Saturday, returning home for the week-end, but on the Saturday on which I visited the place there were still a number of women employed about the small settlement near the copra store, their male relations being still at work. The ground between the trees on this Island is never cleared, the husks and fallen leaves being allowed to rot where they fall, and so form manure. The result is a great accumulation of rubbish, which must add considerably to the difficulty of collecting and carrying the daily tale of nuts. Nevertheless, the labourers have no difficulty in exceeding the nominal day's task.

The usefulness of the rubbish as manure seems to be doubtful, for the deposits undoubtedly favour the reproduction of the coco-nut beetle, and it is admitted that the trees on West are much inferior to those on Settlement Island. The former, Mr. Sidney Ross told me, produce nuts after from 12 to 14 years, the latter after 4 or 5 years only. This difference he explained as being due to the proximity of dwelling-houses on the latter island, but such a small part of the island is covered by the houses that most of the trees must be unaffected by the proximity, so that the only apparent reason for the great difference is the fact that on Settlement Island the ground is kept clear (the rubbish being used as fuel) and the grass and brushwood are not allowed to grow up.

24. In any case, however, the area of West Island is so large as to preclude the possibility of keeping the ground clean without a great increase in the number of labourers.

25. The present gang of Bantamese coolies were engaged in December 1896. Their wages are 12*f.* per mensem, with no extras. They received an advance of 50*f.* on engagement, which they have been repaying at the rate of 2*f.* a month, so that they now owe only 8*f.* each. The repayment is made by a deduction from their wages each pay day. The Cocos men are paid week by week. A large number are employed as artisans on fixed wages, ranging from 1*f.* in the case of apprentices to 10*f.* in the case of foremen. The wages are raised as the value of the artisan's work increases. In several cases an apprentice's wages have recently been increased to 1·50*f.*

26. For the work connected with the copra industry the scale of pay remains the same as in former years, and seems very liberal. Looking over the pay-bills, which had just been made out when I was in the office, I found one for 15*f.*, on which the number of nuts husked and brought to the store was 8,020, and several cases in which over 7,000 nuts had been dealt with by a single man. One of the workers assured me that he could sail to West Island (a distance of 6 miles), husk and carry 2,000 nuts, and return to the village by 2 p.m. the same day. It was also stated that in a shelling competition for women the winner had shelled 60 nuts in 4 minutes.

27. The wages are paid by means of the pay-bills, which are exchanged when necessary for goods at the store, the surplus, after settling for the purchases, being paid in the Cocos currency.

28. The total value of the currency now in circulation is only 1,718*f.* Pay-bills, however, to the value of 17,350*f.* are still outstanding, this sum being inclusive of payments for the week just ended. The total sum to the credit of all classes is, therefore, 18,068*f.*

29. I was unable to ascertain the total indebtedness of the Cocos men owing to the books not being made up, but an inspection of the individual accounts showed one man with a debit balance of 140*f.*, and a few others with small amounts owing. The total of these is not, I should say, more than 500*f.*

30. Mr. Ross's house is still in process of building. Other works in progress are a "tongkang" and numerous boats of different kinds.

31. For a place given over entirely to the copra industry the proportion of men employed as artisans seems very large. There are numerous sheds where carpentering is constantly going on. This activity is due first to the building of the new house, and secondly to the ravages of the white ants, owing to which woodwork has to be frequently renewed, unless the wood be of the kind unpalatable to these pests.

32. The second night of our visit was enlivened by a dance. The hall was thronged at each end with natives, and the three dances described by Mr. Justice Leach were performed. The third of these is named "Buru-Buru-an Ayam," "The Hunting of the Fowl," a name which probably arises from the apparently inextricable confusion of the dancers. The music is of the same abominable character as that of the Straits, but the drum parts, in deference either to the feelings of Europeans or to the age of the instruments (which is more probable) are not played with such lamentable energy. The band of H.M.S. "Daphne" filled the intervals with European dances, and the saltatory performances of the visitors seemed to afford no less delight to the natives than those of their fellows.

33. Each day of our stay I went at least once through the village, talking to the people, and, with the exception of the grumbler mentioned before, I heard no word of discontent. The people seemed, without exception, contented and well to do.

34. A few of the women wore gold ornaments, and I saw one or two little girls with small gold bracelets. One girl had a George IV. guinea tied to a string round her neck and worn as a locket. Almost all the infants had a bracelet of shells round their left wrists. This kind of bracelet is supposed to act as a charm.

35. Some of the children have strange names. Three brothers rejoice in the names Raglan, Napier, and Jackson (Stonewall), respectively, portraits of these celebrities in illustrated papers having reached the father about the time of their births. We did not come across any name connected with the Diamond Jubilee.

36. On Monday, September 19th, Commander Winnington-Ingram and the ward-room officers entertained our hosts and others at luncheon on board, after which we sailed for Batavia, which we reached on September 24th. After filling up our bunkers, we sailed on the 27th, and reached Singapore on the 29th September.

37. The proverbial hospitality of the Rosses was never more fully shown than during our stay. Messrs. Sidney and Charles Ross gave me every assistance in their power. It is, however, a matter for regret that Mr. Ross himself should have been absent at the time of our visit, for his knowledge of the people and Islands would, no doubt, have enabled him to explain the education and other difficulties, and me to make this report fuller and more interesting.

38. In conclusion, I take this opportunity of recording my gratitude to Commander Winnington-Ingram and the officers of H.M.S. "Daphne" for their constant kindness and hospitality throughout the voyage.

I have, &c.,

R. J. FARRER.

No. 286.

CHRISTMAS AND COCOS-KEELING ISLANDS.

REPORT FOR 1899.

(For Report for 1898, *see* No. 257.)

Presented to both Houses of Parliament by Command of Her Majesty.
January, 1900.

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No. 286.

CHRISTMAS AND COCOS-KEELING ISLANDS.

(For Report for 1898 *see* No. 257.)

GOVERNOR SIR C. B. H. MITCHELL to MR. CHAMBERLAIN.

Government House,
Singapore,
25th October 1899.

SIR,

I HAVE the honour to forward six copies of a report by Mr. A. S. Baxendale, superintendent of posts and telegraphs, Selangor, who was appointed the Commissioner to pay the annual visit to Christmas and Cocos-Keeling Islands this year.

2. It will be observed that serious work was commenced by the Phosphate Company on Christmas Island in June last, and that the Company have a considerable labour force on the Island and have taken steps to augment it.

3. Mr. Baxendale points out that no provision has been made for the medical treatment of the Company's employés beyond the supply of a chest of drugs and medicines. He also urges the importance of appointing a magistrate for the Island.

4. As regards the question of felling jungle and forming plantations on the Island, the Company was granted the whole Island, the power to fell timber and obtain minerals being specially mentioned, and it would appear that under the terms of the lease, there is nothing to hinder the establishment of plantations by them. I am not inclined to think that the Island offers much inducement to settlers at present, notwithstanding its favourable position in regard to Western Australia, where the demand for bananas is so great that inquiries have been made as to the possibility of exporting the fruit from Singapore.

5. No complaints were made to Mr. Baxendale either at Christmas or the Cocos-Keeling Islands.

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6. The net increase in the population of Cocos-Keeling Islands during the past year is three, the female being the preponderating sex. The school appears to be less popular than ever, and the population continues to be apathetic in regard to religious matters.

7. I have no further information as to the projected cable of the Eastern Extension Australasia and China Telegraph Company to Australia, but I trust that Mr. Ross will be guided by my advice in any negotiations which he may carry on with the Company. In any case, he is bound by the terms of his grant to "suffer all such and so many persons and companies as shall from time to time be licensed by the Queen's Majesty, her heirs and successors, to land telegraph cables upon any part of the lands granted and to construct, maintain, work, and use lines of telegraph in, over, under, or across the said lands or any part thereof, and he cannot grant, demise, or otherwise alienate (except in favour of his own family, being British subjects) any part of the Islands without the previous sanction of the Governor of the Straits Settlements."

8. Mr. Baxendale speaks warmly of the welcome accorded to him by Mr. Ross and his family, and of the kindness shown him by the Commander and officers of "H.M.S. Phœnix" which conveyed him to the Islands.

I have, &c.,

C. B. H. MITCHELL.

REPORT ON VISIT TO CHRISTMAS AND COCOS-KEELING ISLANDS.

SIR,

IN compliance wlith your instructions I left Singapcre on 21st August, and on the 23rd joined H.M.S. "Phœnix" at Batavia.

2. At 4 p.m. on 24th August we left Batavia for Christmas Island. It is stated that the voyage is almost invariably an unpleasant one, and we were informed when leaving Batavia that just then there happened to be an unusually heavy sea running. The accuracy of this information was demonstrated immediately after we passed Java Head. We reached Christmas Island at noon on the 26th.

3. In the absence of Captain Vincent, who had left for Singapore shortly before our arrival, Mr. Meek was in charge of the Phosphate Company's interests on the Island. I understand that Mr. George Ross retains his financial interest in the Company, but no longer takes an active part in the management. Two days prior to our arrival Mr. Andrew Ross left for the Cocos Islands, taking with him all the Cocos coolies.

4. At the time of our visit there were on the Island :—

5	Europeans. Mr. Meek, Mr. and Mrs. Wilkinson, and their two children.
120	Chinese. Under agreement with Ong Sum Leong and Company of Singapore.
24	Chinese. Carpenters, sawyers, and blacksmiths paid direct by the Phosphate Company.
14	Bantamese. Coolies under three year's agreement (expiring next May) with the Phosphate Company.
13	Others. Of whom four are Chinese, six are Malays, and three are Sikhs, engaged on a year's agreement in Singapore.
1	Cocos-born. Woman married to the Chinese contractor's agent.
2	Javanese. Women, domestic servants of Mrs. Wilkinson.
179	

5. Messrs. Vincent and Meek arrived at Christmas Island in April 1899, and were followed in June by the 120 employés of the Company's labour contractors.

6. Since the latter date much good work has been done. Light portable rails have been laid from the shoot referred to in the previous reports to the mineral deposits on Phosphate Hill.

7. Trucks are attached by a wire rope to a drum at Railhead. The drum is revolved by the weight of the descending loaded trucks, and draws up the empty trucks. One hundred tons of phosphates are daily shot down to the dumping ground which is connected by a tram line with a temporary pier.

8. At the time of my visit 1,400 tons of stone were ready for shipment.

9. At present the surface deposits only are being worked. The phosphate of lime is contained in loose stones which are pitched into the trucks. There is no reason why 500 tons a day should not be obtained—given a greater labour force on the hill workings, a double tram line with heavier rails than those now in use, and an endless wire rope.

10. It is estimated (on what I conceive to be insufficient grounds) that Phosphate Hill contains 2,500,000 tons of phosphates. There can be no doubt that the deposit is an exceedingly large one, and will not be exhausted for many years.

11. I should describe all the phosphates I saw as phosphorites. I saw none that bore any resemblance to ordinary forms of apatite. It is said to always contain a small percentage of iron and alumina, and that its commercial value varies inversely as the quantity of these metals it contains. The cost of treating phosphates which contain 10 per cent. of iron and alumina is so great that it renders stone, however rich it may be in phosphate, valueless.

12. Mr. Wilkinson informs me that the average stone of Christmas Island contains 86 per cent. of phosphate and 4 per cent. of iron and alumina. In some cases it contains as much as 92 per cent. of phosphate and 6 per cent. iron and alumina.

13. I understand that it is anticipated the average stone will fetch £3 15*s*. a ton in the London market. The cost of getting it to London should not exceed 35*s*. a ton.

14. The Island is still unprospected, so that it is not known whether there are other large deposits of phosphates. As the whole Island is believed to be of limestone formation and is known to be thickly covered with trees, it is possible that Phosphate Hill is only one of several such deposits of this mineral.

15. It is intended to make the first shipment of phosphates (about 3,000 tons) during the course of this month. After this shipment none can be made with safety till April next.

16. It appears to be a matter admitting of no doubt that except between April and October, while the S.E. trade-wind prevails, there cannot be a really safe anchorage near the Island. Reference has been made in previous reports to an anchorage on the S.E. side of the Island, but Mr. George Clunies Ross emphatically asserts that no anchorage can be safe between October and April, seeing that at any time during the intervening months a heavy swell and gale may suddenly arise *from any quarter*.

17. During the past year there were no exports from the Island. I look on it as improbable that any timber export trade of importance will arise. The bastard teak tree is not found growing in clusters. There is undoubtedly a great quantity of this timber on the Island, but it is necessary to make a small track to work at each tree. Timber trade is not likely to thrive under such conditions.

18. I am inclined to believe that prospecting for metals will not be crowned with success. I observed the nature of all the stone which I passed by, with a certain amount of care, and was informed that, as far as the Island was known, it was covered

throughout with similar rocks. I saw nothing but phosphorites and limestone, the latter being of a very massive or amorphous character.

19. The soil is undoubtedly very rich and a great number of valuable products could be grown. Mr. Meek having asked me for my advice on this subject, I recommended the planting of *Ficus Elastica* and of tropical fruit, the latter as a "catch crop" to be disposed of in the Western Australian market. Blue funnel steamers plying between Singapore and Western Australia have been under agreement with the Phosphate Company, since June last, to call every month at Christmas Island. These vessels would convey the fruit in three or four days from the plantations to the market.

20. The Liberian coffee trees have grown well, but owing to neglect are not bearing as heavily as they should do. In any case, however, the present low price of Liberian coffee renders it an unprofitable crop. The climate would undoubtedly be unsuitable to Arabian coffee.

21. Coco-nuts can be successfully grown on only a very small portion of the Island, *viz.*, on the shore.

22. Mr. Meek informed me that instructions had been received from the head office of the Phosphate Company to fell and burn five hundred acres of jungle as a preliminary to planting up this area.

23. It appears to me to be advisable that Government and the Company should agree as early as possible, as to what land should be reserved to the Company *for all purposes*. The remainder of the Island can then be offered to intending planters.

24. The labourers, who are all well-housed, appear to be well treated, contented, and healthy. The actual amount paid to the labour contractors for June and July last was $3,113. They have, as I have already stated, 120 men (of whom 108 are coolies) in their employ. Unless therefore the contractors are making an unusually large profit, the men are in receipt of fair wages. The sum paid by the Phosphate Company to the contractor for services of a coolie not on piece-work is 50 cents a day. The contractor's agent informed me that the average earnings of the coolies amounted to $10 a month.

25. The 24 Chinese carpenters and sawyers who are under agreement with the Phosphate Company in no cases receive less than $25 a month. Considering that opium is not taxed and that the men find at hand an almost unlimited supply of food in the shape of pigeons, land crabs, rats, and fish, the cost of living must be very low for Chinese.

26. The Bantamese coolies receive 8 guilders a month and a food allowance of $0.15 a day.

27. One death—stated to be due to tetanus—occurred on the Island during the past year.

28. Mr. Wilkinson, whose eyes have lately given him trouble, consulted Dr. Whitelegge of the "Phœnix." There was no sickness among the natives.

29. No provision has yet been made by the Company for medical treatment of its employés. The cost of a chest of drugs and medicines represents the Company's expenditure on care of the sick. Seventy more Chinese coolies were expected to arrive a week after my departure. The number of the Company's employés now on the Island is therefore 250. A qualified medical man should, I think, be employed for their benefit.

30. The inhabitants of the Island are enthusiastic in regard to its pleasant and salubrious climate, and my limited experience would lead me to believe that they do not over-rate its charms. I understand that the temperature seldom rises above 83° in the shade and that there is almost always a breeze. It is probable that manual labour in the open air would not be injurious to the health of Europeans.

31. I did not join the sportsmen from the "Phœnix" who attacked the birds of the Island, but I was informed that it is as difficult as ever to put the pigeons to flight. One officer having hit a pigeon with his first, eventually brought it down to the ground with his fifth, shot. The birds hang head downwards when seriously wounded. Listening to the description given of their behaviour, one would gather that the wounded birds remain in this position till so much lead has been discharged into them that gravity overcomes their strength. A string of pigeons were weighed as they were brought on board and scaled 42 lbs. inclusive of lead. During the greater part of the year they are very edible, but when wild fruit is scarce the birds become thin and tough.

32. Vegetables are grown by the recently imported Chinese coolies for their own consumption.

33. Since the departure of Mr. Andrew Ross no meteorological record has been kept. There is no rain gauge on the Island. One should be supplied, as the past records of the amount and distribution of the rainfall will be a matter of importance to planters, on whom the future of the Island must to a great extent depend.

34. No postage stamps can be purchased on the Island. Monthly mails are received in and despatched from it, by the Blue Funnel steamers. The outgoing letters are stamped by the officers of these vessels with the postage labels of the country in which they are delivered to the Post Office.

35. In consequence of the withdrawal of Mr. Ross from the Island it was unprovided with a magistrate at the time of my visit. There were, however, three Sikhs employed by the Company to act as policemen. The headman of the three (Lehna

Singh) informed me at first that the work was "not heavy." I eventually extracted from him the information that he has not yet had occasion to vindicate the law. For obvious reasons this is very fortunate.

36. I would urge that the appointment of a magistrate be made at the earliest possible date after funds are available.

37. The probable revenue from Christmas Island for this and the next three years will not be less than $1,500 for the current year, $4,500 payable on 1st January, 1901; $30,000 payable on 1st January, 1902; and $60,000 payable on 1st January, 1903.

38. In estimating the probable revenue of the Island it should be safe to calculate the export duty on phosphates at $1 a ton. I would remind you that the rent payable from 1st January, 1899, is $1,500 per annum.

39. H.M.S. "Phœnix" left Christmas Island on the evening of 27th August.

COCOS-KEELINGS.

The "Phœnix" arrived at the Cocos-Keeling Islands at 10 a.m. on 30th August, and was anchored half a mile from Direction Island. Mr. George Clunies Ross came on board and invited me to go off to the shore with him and be his guest as long as the "Phœnix" stayed at the Cocos. I gladly accepted this kind invitation.

2. On reaching the shore, Mr. Ross drew my attention to the evidences of a destructive cyclone which visited the Islands in March last. It is feared that this year's yield of coco-nuts will be 25 per cent. less than last year's, and that it will be some years before the whole of the damage done by the cyclone is repaired, seeing that some thousands of trees in full bearing were destroyed. In most cases, however, the wind did not break or uproot the trees. It only stripped off fruit and leaves.

3. Last year was a fairly satisfactory one for Mr. Ross. The shipment of copra made last April—representing the previous twelve month's produce—amounted to 800 tons, the price obtained averaging £14 1*5s.* a ton. Mr. Ross states that this represented the contents of 4,500,000 nuts. The price obtained was therefore 2·62 dollar cents a nut. The freight paid was 35*s.* a ton.

4. If there was a local use, or market, for poonac it would probably pay Mr. Ross to make use of the expensive oil mill which he set up some years ago, seeing that a large sum might be saved in freight, but in view of the high price given in Europe

for Cocos copra and of the fact that the manufactured goods would cost as much in freight as the raw produce, it appears to me that Mr. Ross is well advised in exporting copra instead of oil and poonac.

5. The Cocos coco-nuts are unusually small, but do not yield less copra than ordinary nuts. Mr. Ross calculates that 330 nuts generally weigh 100 lbs. It will be noticed, however, that the figures given in my paragraph 3 above, would seem to show that in the last shipment of nuts this average of weight was largely exceeded. The yield of nuts per tree on the more highly cultivated portions on the Islands is very high. The trees on the uninhabited Islands bear but a small quantity of nuts. This fact tends to confirm in the minds of the natives the deeply rooted belief, not peculiar to the Cocos, that the coco-nut tree requires human company as well as attention if it is to thrive and bear well. The total yield of nuts per tree throughout the Islands does not average eight.

6. The trees are planted on an average, eighty to the acre. They are thus, of course, much closer than in plantations on the Malay Peninsula. Mr. Ross explains that he has adopted this course in order that the damage done by cyclones may be minimised. It is seldom that a cyclone makes a clean sweep of any extensive space. Cyclonic winds, judging from the appearance of trees near the course taken by the last cyclone, not only circle round a moving axis but travel in switchback method of progression that leaves large numbers of trees undamaged while their neighbours on all sides are denuded of fruit and branches.

7. In order to break the force of the wind, trees known here as Bintang Laut are being planted all round the Islands. Mr. Ross states that they never suffer damage from cyclones.

8. There are on the Island some magnificent specimens of *Ficus Elastica*. The trees are about ten years old. An incision did not result in the flow of much sap, but Mr. Ross stated that this was the wrong time of the year to expect a good yield of rubber. It is a pity that these trees cannot be planted in the place of Bintang Laut, seeing that the latter trees produce nothing of value. It is not known how the wind would treat the upper part of the tree, but it can be safely assumed that no cyclone would uproot a well grown *Ficus*.

9. There are great quantities of *beche-de-mer* around the Islands, but none has been exported for years. The explanation for this is to be found in the fact that the labour force on the Island is barely sufficient to work the coco-nut plantations and man the workshop and yards.

10. While at the Cocos, I paid particular attention to the boat-building. The excellence of the native workmanship, when directed by Messrs. Ross, results in the construction of boats which compare favourably with those produced by the best yards in Europe and America. A flush-deck centre-board boat,

reserved by Mr. George Ross for his own use, appeared to me to be one of the best built boats I ever saw. On examining an 8-ton boat just completed in the yard I remarked that no caulking was necessary. Mr. Ross at once pointed out to me that not only was no caulking ever done in his yard, but that none of the boats built by natives for their own use were ever caulked.

11. The ironwood of the Island is peculiarly well adapted to boat building; it is in many ways similar to oak. The boats built of it have a long life owing to its toughness. The curvature (which it invariably adopts in its growth) provides branches which require only a little planing to fit them for ribs of boats. By reason of the continuity in the grain of these ribs, their strength is obviously far greater than if they had been sawn out of square timber.

12. It would appear that the Cocos Islanders are not inclined to under-rate their skill as boat builders. They expressed to Mr. Ross their surprise that the British Government did not obtain the use of his yard and their services for building men-of-war.

13. When I visited the school there were only two pupils present. I gathered that this was rather higher than the average school attendance. It appears that those who are to be trained as skilled mechanics are not necessarily, or even generally, chosen from among the youths who have been educated, and it is difficult to see what benefit can accrue to anyone from the existing system of native education.

14. Miss May Ross (daughter of Mr. George Clunies Ross) teaches English for two hours daily to the younger generation of the Ross family.

15. Schism and a rival have deprived the "Established" Imam of half his following and earnings. Mr. Farrer did not overstate the case in his reference to the apathy of the natives in regard to religious matters.

16. The amount due by Mr. Ross to all labourers on 26th August was *f* 15,287.50.* No coolies are under advances to him as there have been no importations of Bantamese for some years. The paper currency in circulation on the islands amounts to *f* 2,200.00.

17. Postage stamps have not yet been issued by Mr. Ross, but he proposes to obtain them and thus supply that which, according to philatelists, is a long felt want.

18. Mr. Ross walled in a garden of 23 acres in which he succeeds in growing not only all the fruits commonly grown in the Malay Archipelago except durians and mangosteens, but also grows figs, pomegranates, oranges, lemons, and avocado pears.

* NOTE.—The sign *f* signifies guilders. The Dutch guilder is worth about one shilling and eightpence. The Cocos currency guilder, which is a sheepskin note, is worth five-sixths of a Dutch guilder.

19. The climate is undoubtedly cooler than that of the Straits. This is probably due to the fact that in the Cocos there is almost always a strong wind blowing from off the sea, which being much deeper, is cooler than the water of the Straits of Malacca.

20. The census return, which is attached, shows that the excess of Cocos-born females over males is steadily increasing. The females are now in a majority of 37. Those well qualified to judge state that monogamy and freedom from licentiousness prevail. It is to be hoped that they will continue to do so in spite of the preponderancy of one sex over the other. It is reassuring to think that if the theory of "cross heredity" is to be relied on, the births of males should in future exceed those of females, as the women appear to be physically stronger and better, because more regularly nourished, than the men.

21. The chief cause of deaths among children still appears to be aptha. There were no cases of tetanus amongst the Islanders during the past year, but the death of several dogs was attributed to it. Tetanus frequently follows a wound if the latter is not properly cauterised. It is stated that rabies is unknown on the Islands. The symptoms of tetanus and rabies are however not dissimilar. Among the deaths of the past year is to be noted that of the old woman most cunning in the art of procuring abortion—*Vide* Mr. Farrer's report.

22. The departures shown in the census return refer to Mr. Sydney Ross (who has gone to Europe) and the Cocos-born woman who married the Chinese labour contractor's agent at Christmas Island.

23. Dr. Whitelegge was consulted in regard to 37 cases of influenza. The return of the *Tweed* from Java and Christmas Island, two days before our arrival, caused this epidemic. Dr. Whitelegge also attended to one case of tumour and two of goitre. The latter is prevalent throughout the Islands. To the presence of such quantities of salts of lime in the well water on Selima Island is attributed much of the sickness. To counteract it Mr. Ross causes large quantities of old iron to be thrown into the wells.

24. A matter which causes me some surprise is that of all the six hundred men, women, and children who work and play beneath coco-nut trees shedding nearly five millions of nuts annually practically none are seriously injured from falling nuts. Mr. Ross informed me that a native superstition exists to the effect that nuts which injure a human being will on examination be found to have no eyes. Having on one occasion been grazed by a coco-nut he husked it and pointed out to the natives that it possessed its full complement of eyes. The result was that he was warmly congratulated on his escape, which, it was pointed out to him, he evidently owed to the possession of eyes by the coco-nut. Had the nut been blind it would inevitably have fractured his skull.

25. Though Mr. Ross has some awe-inspiring stories to tell of the size of sharks which at times frequent the Cocos lagoon, yet he told me that the natives with good reason fear barracouta more than sharks. These fish, which seemingly grow to an enormous size and are generally ravenous, possess chameleon-like powers of changing colour more highly than do any other fish of which I have heard. I know that this power is owned by fish to a greater extent than is generally believed, but yet it surprised me to hear from Mr. Ross that barracouta can chameleonize instantaneously to match the patchy coral bottom over which they are swimming.

Standing one day on the Selima pier I witnessed a very extraordinary vanishing act performed in the clearest water by what I believe to have been a barracouta.

When sharks are caught on lines or in nets they are killed, though without excitement, but when a barracouta leaves its native element through force of circumstances, it is attacked by the Cocos Islanders with frenzy and beaten into a shapeless mass.

26. I attach the meteorological records of the Island. There are on the Islands a barometer and a thermometer, but no other instruments necessary for observing or recording climatic conditions. The Straits Government has, I believe, on two occasions endeavoured to supply the necessary equipment, but on neither occasion did the instruments survive the voyage from Batavia.

27. I was given ample opportunities of meeting, watching, and talking to the Cocos Islanders and Bantamese. No complaints were made to me, and I do not think that there can be anything wrong with the administration of the Islands considering the satisfactory result that has been attained in formation of the native character. The impression left on my mind by the Cocos Islanders is that they are more like the labouring class of Europeans bereft of alcoholic liquors and released from the struggle for existence than like natives without religious restraint.

28. The Eastern Extension Australasia and China Telegraph Company has made application to Mr. Ross for sanction to land a cable on one of the Cocos Islands. Mr. Ross proposes to lease Direction Island to the Company. The chart will show that Direction is the most suitable Island on which to land a cable. Some small expense will be incurred by the Company in obtaining fresh water, but seeing that Direction Island is nearer to Horsburgh (from which Island the Ross family obtains its fresh water) than is Selima, the hardship will not be great.

29. It is probable that not only this Company but that others will be anxious to adopt the Indian Ocean route and will use the Cocos as a landing place for cables.

CHRISTMAS AND COCOS-KEELING ISLANDS, 1899.

30. There can be no doubt that in many ways an all British route through the Indian Ocean would be incomparably superior to the proposed Pacific cable. The following are the advantages that would be possessed by the former route :—

(*a*) India would be connected by an all British cable.

(*b*) The greater part of the line of communication would require no special patrol by Her Majesty's vessels in time of war.

(*c*) The cable ships of several telegraph companies would be available.

(*d*) The theoretical speed on any of the cables, if nothing heavier than a 400 lb. core was used, would be 20 words a minute (simplex) as against a theoretical 10·7 words a minute, with an 800 lb. core, on the Pacific route.

(*e*) It is probable that even without a subsidy a cable connecting Zanzibar with India, Australia, and Java, by way of Seychelles, Chagos, Cocos, and Christmas Islands, would become a commercial success, if worked in conjunction with the African Trans-Continental line. If the tariff from Europe to Zanzibar was 1*s.* 3*d.* the rate to India might be lowered to 2*s.* 3*d.*, to Java 3*s.*, and to Australasia from 3*s.* to 3*s.* 6*d.* It would not require a heavy subsidy to arrange that the Seychelles should be connected by an all British route with England *viâ* the Cape.

31. After a stay of five days at the Cocos, during which time Mr. and Mrs. Ross extended their lavish and kind hospitality to all comers, we left on 4th September and reached Singapore on the 12th, having stayed 24 hours at Batavia *en route*.

32. The most unvarying kindness was shown to me throughout the voyage by Commander Cochran and all the officers of H.M.S. *Phœnix*.

I have, &c.,

A. S. BAXENDALE.

CENSUS—SEPTEMBER, 1899.

COCOS PEOPLE.

—	Men.	Women.	Boys.	Girls.	Total.	
	92	102	104	126	424	
Births + ...	—	—	6	12		
	—	102	110	138		
Deaths ...	4	3	2	4		
	88	99	108	134		
Departures ...	1	1	—	—		
	87	98	108	134		427
Bantamese ...	50	37	56	45	188	
Births + ...	—	—	3	7		
	50	37	59	52		
Deaths ...	—	—	—	2		
	50	37	59	50		
Departure ...	2	3	4	—		
	48	34	55	50		
Arrival ...	1	—	—	—		
	49	34	55	50		188
					612	615

CHRISTMAS AND COCOS-KEELING ISLANDS, 1899.

Month.	Barometer.		Thermometer.		Number of days on which rain was recorded.	Prevailing wind.
	Maximum.	Minimum.	Maximum.	Minimum.		
1898.						
September	30·08	29·92	90°	75°	5	S.E. to E.N.E.
October ...	30·08	29·90	90	73	6	S. to S.E.
November	30·03	29·92	88	76	5	S.E. to N.E.
December	30·03	29·98	88	76	7	S.S.E. to S.E.
1899.						
January...	29·98	29·86	87	73	8	S.S.E. to N.E.
February	30·02	29·74	90	74	4	Variable.
March ...	30·03	29·53	88	72	10	Do. (cyclone on 13th).
April ...	30·06	29·83	90	74	7	S.S.E. to S.E.
May ...	30·07	29·92	87	74	7	Do.
June ...	30·10	29·86	88	74	5	Do.
July ...	30·07	29·90	87	73	15	Do.
August ...	30·06	29·93	84	74	12	S.E. to E.S.E.

Two readings of the barometer and thermometer are almost invariably taken daily—one between 6 and 7 a.m. and another generally between 6 and 7 p.m.

July appears to be the coolest month of the year (mean 76·5°) and December the hottest (mean 81·4).

Mr. Farrer's entry of 98° maximum temperature for April, 1898, is inaccurate. The highest recorded temperature for that month, I found, was 91° only. January and February are apparently the calmest months. Seeing that there is no rain gauge on the Islands, it is probable that some showers of rain of which no record was kept occurred at night.

COLONIAL REPORTS—ANNUAL.

No. 319.

CHRISTMAS ISLAND.

REPORT FOR 1900.

(For Report for 1899, *see* No. 286.)

Presented to both Houses of Parliament by Command of His Majesty.
April, 1901.

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ANNUAL.

No.	Colony.	Year.
294	Barbados	1899
295	Malta	,,
296	Fiji	,,
297	Turks and Caicos Islands	,,
298	Bahamas	,,
299	Sierra Leone	,,
300	Gambia	,,
301	Seychelles	,,
302	Mauritius and Rodrigues	,,
303	Trinidad and Tobago	,,
304	Straits Settlements	,,
305	Gibraltar	,,
306	Gold Coast	,,
307	Ceylon	,,
308	Leeward Islands	,,
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310	British Honduras	,,
311	St. Lucia	1899–1900
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MISCELLANEOUS.

No.	Colony.	Subject.
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2	Zululand	Forests.
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4	Canada	Emigration.
5	Bahamas	Sisal Industry.
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9	Dominica	Agriculture.
10	Virgin Islands	Condition during 1897.
11	Grenada	Agriculture in Carriacou.
12	Anguilla	Vital Statistics, 1898.
13	Cook Islands	Trade, 1899.
14	Bahamas	Fibre Industry.
15	Canada	Legal status of British North American Indians.

No. 319.

CHRISTMAS ISLAND.

(For Report for 1899 *see* No. 286.)

ACTING GOVERNOR SIR J. A. SWETTENHAM TO MR. CHAMBERLAIN.

Government House,

Singapore,

December 6th, 1900.

SIR,

I have the honour to now forward to you a copy of the report on Christmas Island and the work of the Phosphate Company there, furnished me by Mr. L. H. Clayton, the Government Officer I deputed to visit the Island.

2. The principal points touched on by Mr. Clayton, such as the absence of latrine accommodation, the insufficiency and the bad quality of the water supply (see report* of Government Analyst on the samples of water from the Island sent to him), the necessity for more hospital accommodation, the improvement of the food supply, the advisability of arranging for more frequent and regular communication with the Colony and the failure to supply full information regarding the amount of phosphate exported, &c., have been specially brought to the notice of the Manager resident on the Island.

3. Since Mr. Clayton's visit, Dr. Cormac, the Medical Officer engaged by the Company, has arrived from England and has left to take up his duties. Sir John Murray is at present at the Island and will, I trust, see that due effect is given to the representations of this Government.

4. I am anxious to send an officer to reside on the Island at an early date, but this cannot be done until a house has been built for him. I have had plans prepared for a house for this officer, part of the lower floor of which is designed to be used as a Court and Office, also for quarters for a Chinese Interpreter and twelve Sikh Police. The estimate of the cost of these buildings amounts to $46,600, and I ask that your approval of this expenditure may be communicated to me by telegram.

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* Not printed.

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CHRISTMAS ISLAND, 1900.

5. The buildings are to be of wood with corrugated iron roofs, and are no better than, if as good as, the quarters supplied in the Colony. The extra expense is due to freight (all the materials having to be transported from Singapore to the Island), to the great cost of taking labourers to the Island, and the very high wages it will be necessary to pay them while employed there in erecting the buildings.

The total cost is made up as follows:—

Buildings	$24,300
Freight	13,600
Passages to and from the Island ...	2,300
Clearing sites	3,250
Contingencies	3,150
Total	$46,600

The amount is large, but so is the revenue expected to be received as royalty on the phosphate exported from the Island.

6. As the transport of the materials to the Island and the erection of the buildings there will occupy some time, I propose to send an officer to visit the Island again in January next, to inspect and report whether the points to which the notice of the Manager has been drawn have received attention.

I have, &c.,

J. A. SWETTENHAM.

REPORT BY MR. L. H. CLAYTON ON HIS VISIT TO CHRISTMAS ISLAND.

Chinese Protectorate,

Singapore,

October 16th, 1900.

SIR,

I have the honour to report that, in accordance with your instructions, I embarked on board s.s. "Sea Belle" in the evening of September 25th. We left Singapore Harbour at 6 a.m. the following morning, and arrived at Christmas Island at noon on September 29th.

2. Captain Vincent, the Manager of the Christmas Island Phosphate Company, Limited, came off to meet us, and, after considerable delay, caused by the dragging of our anchor at the first attempt, we anchored in Flying Fish Cove.

3. The s.s. "Ayr," belonging to the Mercantile Steam Ship Company, Limited, London, which had arrived at the Island one day before us, was moored in the Cove, and loading up with phosphate for Japan.

4. In the afternoon I landed, and, in company with Captain Vincent, walked all over the inhabited portions of the Cove. With the exception of the new coolie lines, which I will describe later, the houses of all the inhabitants, European, Chinese, and Malay, are built on a flat strip of land between the shore and the limestone cliff. This strip is about half a mile long and about 300 yards wide, and has been partially, although not completely, cleared of trees.

5. On the left-hand side, as one enters the boat channel, are the quarters of the Malay, Javanese, and Indian employés of the Company. Next in order come the food stores and the house now occupied by Captain Vincent and the two European Engineers, with their boys' quarters, kitchens, &c. Two new one-storied houses for Europeans—one for Mr. Meek, the Chief Engineer, and one for a doctor who is expected shortly—are approaching completion close by, and a little further along is the house built by Mr. Ross, and now in the occupation of Mr. Ferrier, the Analytical Chemist, employed by the Company. Walking for about one hundred yards parallel to the shore one arrives at the old coolie lines. The narrow strip of land between limestone cliff has been turned by the Chinese into a vegetable garden.

6. Immediately beyond the old coolie lines the ground rises abruptly some 30 feet, and on a small plateau is the coffee plantation referred to in previous reports. From here, crossing the truck line used for bringing phosphate to the beach, and following a path for about 300 yards, one reaches the new coolie lines, still in process of erection, while some 200 yards farther on still are two small atap hospitals. The ground here is only cleared just where it is proposed to build, but there is a rough path for about a quarter of a mile further to the burial ground, the distance of which from the present Malay quarters would be, I should say, about $1\frac{3}{4}$ miles.

7. The phosphate is at present only being worked at and near the summit of Phosphate Hill. The coolies pick it up from the ground, where it lies in blocks, and throw it into iron trucks running down a slight incline to the head of a double line of rails, which descend for a distance of about 500 yards at a gradient of one in four. The full trucks are connected by a wire rope with the empty ones at the bottom of the incline. This rope passes round a drum, to which a hand-brake is attached. At the bottom

CHRISTMAS ISLAND, 1900.

of this rail the trucks, each one with a coolie in charge, run down a slight incline for about 300 yards to the head of the main rail, which is worked similarly to the smaller one above. This has only a single line of rails, with about 100 yards of double line at the middle for the trucks to pass one another. The length of the line is about $1\frac{1}{4}$ miles and the gradient about 1 in 10. An extremely powerful hand-brake acts upon the drum, and the trucks can be brought to a standstill in a very short distance.

8. The loaded trucks run right on to a wooden platform, and the phosphate is then tipped out of them down the shoot referred to in previous reports. Coolies at the bottom again pick the stones up and place them in wooden trucks running to the water's edge, which are emptied down a metal-lined shoot into boats.

9. By the system now in use as much as 330 tons can be loaded into a steamer in a day.

10. I understand that plant is on its way out for converting the single line on the principal rail into a double line, and also for starting a system of aërial haulage, by which the phosphate can be taken in buckets from the wooden platform at the foot of the principal rail direct to the loading-point, and, if possible, right on to the ship's deck.

11. A crane has been brought out, and a base is now being prepared for it. This crane will swing buckets 75 feet clear of the cliff, but I think it is doubtful whether masters of steamers will be willing to bring their boats in sufficiently close for this to be used. At present they will not come nearer than about 250 feet from the cliff (which is here about 25 feet high), and they seem to require some persuasion to venture even so near.

12. Captain Vincent wishes to construct a small wharf at the loading point. He says that this could be done at a reasonable cost, as there is a narrow reef on which it could be built, and the steamers could then be brought alongside. Another suggestion is to cut a small dock in the limestone rock to accommodate one vessel. I am not qualified to judge how far the adoption of any of these projects would decrease the danger to vessels which undoubtedly does exist.

13. Captain Murphy, of the "Sea Belle," is of opinion that the safest plan for vessels will always be to anchor with their bows towards the sea and their sterns attached to a buoy. In this way, by slipping the cables, a steamer could get completely clear of the island in a few minutes if the weather should appear threatening.

14. It appears to me that the present method of bringing down the phosphate is attended with some considerable risk to the coolies.

A telephone is attached to the upper rail, and notice is given at the bottom whenever trucks are about to start. The men at the lower end should therefore have good notice if any accident were to occur, and there are no coolies at work anywhere on the

line. On the principal rail, however, notice is given by waving flags at all the corners, as the telephone is not yet in working order. It is a common occurrence for trucks to upset, and I am told that the wire rope has snapped several times. In such cases I understand that the weight of the trucks is such that they swing right off the rails before they can get up any great speed. This must involve risk to those employed at the flag-stations and at the crossing place half way down.

15. Again, it seemed to me that accidents might easily occur to the coolies who pick up the phosphate at the bottom of the shoot. When a batch of loaded trucks arrives at the wooden platform the coolies there wave a flag and shout to those below, who then retire a short distance before the stuff is tipped down. The blocks of phosphate come flying down at a great speed, and I myself saw many of them go some considerable distance beyond the point where the coolies work, and, in some cases, even as far as the place to which they had retired. It is true that the men go to the left, so as to be out of the direct course of the stones, but it is impossible to tell how an irregularly-shaped stone will turn when it strikes against an obstacle; and, moreover, a Chinese coolie is just the kind of man to go back at the very last moment to pick up something. I am told that one man has already been killed by a stone at this place.

16. As I was watching, one of the trucks at the top was accidentally tipped over, but its shape prevented its coming any further than the bottom of the shoot. It occurred to me that if the wire rope broke when the loaded trucks were, say, 100 yards above the platform, there would be every chance of a disaster. The coolies on the platform would be in the greatest danger themselves, and would certainly not have time to warn those below, while the eight trucks, each of which with its load weighs something like a ton, would come crashing right down the shoot on to the men, and I do not think that they would be able to get away quickly enough.

17. It is only fair to point out that no serious accident has occurred so far, and it is possible that I have taken somewhat too serious a view of the possibilities. There can be no doubt, however, that the danger to the coolies will be much less when all the proposed fresh plant has been installed. With a double line of rails and a telephone signal, no coolies need be employed on the line while the trucks are running. The substitution of aërial haulage for the present shoot will also be a distinct gain, and I would suggest that a stronger wire rope that the one now in use be employed. It is to be hoped that the proposed alterations will be carried out as soon as possible.

18. I inspected the old coolie lines on several occasions, both during the day and after the coolies had gone to bed. They consist of seven or eight plank buildings with atap roofs, accommodating from 15 to 50 coolies each. They are all raised about 1½ feet from the ground, and the air can pass freely underneath.

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Except in one or two cases the beds are not raised from the floor. Hardly any of the coolies use mosquito curtains, and I was told that they were unnecessary. The available space is portioned off by upright planks about 4 inches high, and as a rule 2 coolies sleep in each division. I think that the space allotted to each coolie is slightly less than is usual, at the ventilation is extremely good. I only saw one shed that seemed to be overcrowded at all, and that was owing, I was informed, to several men having moved in for one night only. The absence of mosquito curtains undoubtedly helps to keep the air fresh. On the whole, I consider that the sleeping accommodation at the old coolie lines is satisfactory, and I heard no complaints from the coolies themselves on the subject.

19. Instructions have been received by the Manager to burn down all the old coolie lines as soon as the men can be housed in the new lines. As beri-beri has broken out, this will no doubt be advisable, but I do not think that any blame attaches to the Company in respect of these quarters.

20. The kitchens are close to the lines and are under cover. They seemed adequate and satisfactory, but the supply of rice-bowls, &c., was insufficient.

21. There are no latrines. The coolies make use of a portion of the sea-beach for this purpose.

22. The new coolie lines consist of a number of plank and atap sheds. They are well built and raised on piles quite five feet clear of the ground. Three of these sheds are complete, with beds raised from the floor about two feet. They are weather-proof and each holds 18 men, who appear to be extremely comfortable in them. Five more sheds are complete except for the raised beds, and are now occupied by coolies sleeping on the floor. One shed is half finished and unoccupied, and two more have just been begun. It is proposed to build a double line of these sheds. There is plenty of room for as many as may be found necessary. At present the coolies living in the new lines obtain their food from the old kitchens.

23. Here, again, there are no latrines, the coolies making use of the jungle between the sheds and the edge of the cliff. The manager proposes to erect wooden latrines projecting over the face of the cliff. I think this plan should answer very well. The cliff is about 30 feet high, and there are 3 fathoms of water at the foot.

24. The water for the settlement is at present obtained from two wells—one not far from the Manager's house and one about 100 yards nearer to the old coolie lines. I am informed that these two wells give an ample supply for the whole community throughout the year. Samples of the water of each have been already forwarded, that from the former being labelled "B" and that from the latter "A." The well supplying "B" is used for drinking purposes, and that supplying "A" for bathing by the

Chinese. The water of both, however, is considered to be equally good, although containing a large percentage of lime.

25. Water will, I think, be a difficulty in the case of the new coolie lines. A well is now being sunk near the white beach and about 100 yards from the coolie sheds, but no water has been found as yet. All water has, therefore, to be carried from the two lower wells, a distance of over one third of a mile. This is very unsatisfactory, and the coolies complained about it. I spoke to the Manager on the subject, and he hopes to drive water up to the sheds through pipes by steam. It is proposed to start a steam saw-mill close by here, and the power could be utilized for the water. If good water in sufficient quantity can be obtained from the new well now being sunk, the difficulty will be solved, but otherwise the question will require serious attention.

26. I examined the Register of Deaths, which has been kept since the beginning of the year. I was informed that there had been no death between the visit of the last Commissioner and the beginning of the present year. The total number of deaths this year up to the end of September was 57, of which number 19 were registered as owing to "Natural Causes," 2 to accidents, and the rest to beri-beri. "Natural Causes," I understand, means that the cause of death could not be accurately ascertained owing to the fact that there is no qualified medical officer on the island. Of the deaths 2 occurred in January, 5 in February, 16 in March, 2 in April, 12 in May, 3 in June, 2 in July, 8 in August, and 7 in September. The causes of 4 of the deaths in March were certified as beri-beri by Dr. Jamieson, of Singapore, who visited the island during that month. The average duration of illness before death was about 30 days. It appeared from the register that fresh arrivals were most liable to illness. No doubt in this manner the weaker coolies are weeded out. I was informed that there had been no fever nor infectious disease of any kind.

27. The two accidents occurred, one from a blow from a stone at the bottom of the shoot, and one from injuries received in being run over by a truck.

28. The two hospitals are plank and atap sheds, each capable of accommodating about 20 patients. They have no floor, but the beds are raised some two feet from the ground. An intelligent Chinaman, who, however, has no knowledge of nursing, is in charge. There were twelve patients in hospital at the time of my visit, all suffering from beri-beri, and one man who had broken his back falling from a tree, and whose death was, of course, only a matter of time. Captain Vincent treats beri-beri by giving as far as possible a complete change of diet, and feeding them on eggs, brandy, lime juice, pigeons, &c. All the patients were cheerful, and seemed to believe thoroughly in the treatment, under which they said they improved every day.

29. Captain Vincent also attends at a small dispensary at certain times of the day and treats sores, to which the Chinese here, as everywhere, are very liable. They have a remarkable

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belief in his powers in this line, and attend strictly to his advice as to keeping the sores clean and applying remedies. In consequence, the coolies are usually free from serious sores, a fact of which Captain Vincent is justifiably proud, and which is entirely due to his personal influence.

30. It is, however, greatly to be regretted that no properly qualified medical man has as yet been sent out by the Company. Mr. Baxendale, in the report for last year, recommended the engagement of a doctor, and if one had been sent out immediately I do not think there can be much doubt that the death-rate would have been lower. Captain Vincent does as much for the sick coolies as he possibly can, but he has neither the necessary knowledge nor the leisure time required. The coolies understand this perfectly well, and some of them asked for a doctor, as the Captain, "although very good at external complaints, was not much good at internal ones."

31. There is what appears to be a sufficient stock of medicine on the Island, but only two or three of the most well-known drugs are used, as nobody knows what the others are or for what they should be used.

32. A Chinese dresser was engaged for a short time, but was discharged as he did his work very badly, and used never to take the trouble to wash the sores and wounds he had to dress.

33. I understand that a doctor is expected very shortly. It is to be hoped that on his arrival he will be given a free hand as to construction of proper hospital accommodation, as the present arrangements can hardly be considered satisfactory.

34. There have been no births on the island.

35. The situation of the burial ground was explained in paragraph 6 above. It is well away from the sources of the water supply and from the coolie lines. Coffins are provided, and I was informed that the depth of burial was about 4½ feet.

36. Many of the coolies complained that not enough vegetables were provided, and also asked that more fat should be used in the cooking. A good deal has been already done in the way of growing fresh vegetables, but I think that the gardens might be extended with advantage. The quality of the salt fish supplied seemed to me to be very inferior. The food for the Cantonese carpenters and sawyers was satisfactory both in quantity and quality, but I think that for the ordinary coolies should be improved.

37. Stores are brought from Singapore once a month. A corrugated iron shed for storing rice has been erected, and a large supply is kept in stock. All stores have to be protected from rats, which infest the island. The large fruit-pigeons of the island are much in demand, and the frigate birds, boobys, and land crabs are also eaten by the Chinese. In the plantation started by Mr. Ross I found orange trees, coffee, limes, custard-apples, &c., all growing indiscriminately and luxuriantly, in spite

of the fact that no attention is now bestowed upon them. Fish are caught, but only with lines. I think that a net might be used with advantage, as, owing probably to the clearness of the water, the fish, although they can be seen in large numbers, do not bite readily.

38. The Cantonese carpenters frequently send on their own account for extra delicacies from Singapore. On one occasion, I am told, they ordered Champagne, when a liquid so labelled was duly supplied to them.

39. Clothes and various miscellaneous articles can be obtained from the labour contractor's agent at high prices. Opium is sold at the same price as at Singapore, and, as there is no duty, the profit to the labour contractor must be considerable. The opium is prepared on the island, and I was informed that only Indian opium was used.

40. At the time of my visit the inhabitants of the island consisted of the following:—

Europeans.

Captain Vincent, Manager.
Mr. Meek, Chief Engineer.
Mr. Nisbit, Assistant Engineer.
Mr. Ferrier, Analytical Chemist.

Eurasian.

Mr. Woodford, Clerk, and wife and one child.

Chinese.

Koah Seng Kim.
1 mandore.
6 coolies.
2 blacksmiths.
20 carpenters (Cantonese).
30 sawyers do.
1 diver (Malay).
30 Malay and Javanese boatmen.
11 Sikh Policemen.

All the above are employed directly by the Company. The following are in the employ of the labour contractor, Ong Sam Liong:—

268 coolies (Kheh).
154 do. (Cantonese).
13 do. (Hylam).
12 mandores.
Total 447.

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Besides Mrs. Woodford, there are two other women, one a Cocos-born woman, married to the agent of the labour contractor, and one Javanese, the wife of a boatman. The total number of inhabitants is 558, and, with the single exception of the Cocos-born woman, they have all arrived since April, 1899.

41. I would draw particular attention to the disproportion in the sexes, there being only three women on the island.

42. The blacksmiths, carpenters, and sawyers are mostly still under six months' contracts made in Singapore. They receive a wage of $20 to $25, and an allowance of $4·50 per month towards their food. A fair number, however, have worked out their contracts, and are staying on of their own accord. Several of them said that they wished to leave, but would like to make a little more money first.

43. The unskilled labour is all supplied by Ong Sam Liong, of Singapore, who contracts to supply any number of coolies that may be required for a commission on each ton of phosphate shipped. With the exception of 20, the coolies are all "**sinkhehs,**" and are engaged through the Chinese Protectorate at Singapore; 114 of these men are working on of their own free will after the expiration of their contracts.

44. The men are under the control of 12 mandores, each receiving $12 a month. About one half of the mandores are coolies who have been specially promoted. Several of the coolies are employed as barbers, cooks, clerks, bird-catchers, &c. It appeared to me that an intelligent and healthy "sinkheh" had excellent opportunities of doing well if he chose to avail himself of them.

45. On the second day of my stay I called a meeting of all the Chinese employés. About 300 turned up, and I told them that the law of the Straits Settlements was now in force, and asked for complaints. I also offered to go into wages account of anyone who asked me to do so. There were a number of small complaints, but nothing of any importance. I, on more than one occasion, visited every place at which the men worked, conversed with them, and heard complaints.

46. I found that when on duty most of the mandores carried canes. Some of the coolies had slight rattan marks, and they cheerfully announced, "When we are lazy we get caned." I think this practice should be stopped. There was no instance of anything worse than a very slight caning, but it was always a weak or sickly coolie who had been punished, and a small fine would be just as effective in checking malingering.

47. I carefully examined the Chinese accounts books and records of work done by the coolies, and I found that in every case the coolies had more work to their credit in the books than they could have claimed under their contracts. This is very satisfactory, and is, I think, creditable to the labour contractor.

48. A number of coolies who had worked off their contracts were intending to leave by the next steamer for Singapore.

49. In January last, during Captain Vincent's absence, trouble arose among the coolies. An attempt was made to form a society, and some of the men tried to damage the plant of the rail by continually allowing loose trucks to run down. The four coolies principally concerned were sent back to Singapore, and after their departure no further trouble was experienced.

50. In April a Cantonese carpenter assaulted one of the Sikh constables, and was fined $5 by the Manager. The other carpenters struck work, and threatened to assault the Manager. After a few days of argument, however, matters were settled, and the men returned to work. I was informed that on this occasion the coolies, who have no particular sympathy with the skilled labourers, announced their intention of helping the Manager if there was to be any fighting.

51. Almost immediately after I had informed them that offences would be punished by the law of the Straits Settlements some Cantonese carpenters committed an unprovoked assault on their Hokkien cook. I arrested them, and on the following day sentenced one man to one month's hard labour and a fine of $40, and two others to 10 days' hard labour each. The Manager undertook to see that the sentences were properly enforced, and I left the men under his charge.

52. Armed Sikhs patrol the Settlement after dark, but on no occasion as yet has it been necessary to fire on anybody.

53. There is a good deal of gambling among the more highly paid of the men, and I discovered that a commission of 20 cents per day on each mat was collected by the head mandore. The money is supposed to be devoted to celebrating Chinese festivals. As the amount collected is between $40 and $50 a month, I suggested that the monthly totals should be notified to the Manager, who could then see that some value was obtained for the money.

54. The Manager informed me that he had at one time forbidden gambling, but there was nothing else for the men to do, and they had quarrelled and fought so much that he thought it better to allow the gambling, which, at any rate, keeps the men quiet. I agree with this view, and I do not think any good purpose would be served by attempting to put a stop to it. All gambling is stopped at 9 p.m., and the men are sent to their quarters. No lotteries are carried on. Gambling disputes are brought to the Manager, and his decision is always accepted.

55. The Manager informed me that one of the Cantonese head carpenters had been giving a great deal of trouble recently by persuading the men not to work. I had an interview with the man, and, as he seemed likely to exercise a bad influence over the others and was also a notorious gambler, I, with his own consent, brought him back to Singapore in the "Sea Belle."

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56. On the day before I left the Island I interviewed all the Malays, Javanese, and Sikh employés of the Company. With the exception of one man they had no complaints of any kind. A number of the Malays were returning to Singapore by the next steamer, their contracts having expired. One man, however, wished to leave. He said he had not signed the contract at all, but had come as a substitute instead of the man who had done so. He admitted, however, receiving the advance mentioned in the contract, and I told him that in any case he could not leave without a month's notice.

57. A steamer from Singapore calls regularly once a month, but the return steamers call only at irregular intervals when asked to do so by the Company. Some of the employés complained about this, and said that, although when a steamer for Singapore did call, anyone whose contract had expired was allowed to return, yet such men had usually to wait two or three months before they had an opportunity of leaving. The rates for passages to and from Singapore are excessive, so that the Company is certainly tempted to postpone sending time-expired men back as long as possible. It would be an advantage if it could be arranged that steamers bound for Singapore and carrying passengers at reasonable rates should call at regular intervals. The Company pays the passage back to Singapore of all time-expired men.

58. I found no case of a man being illegally detained on the Island against his will. The coolies appeared to understand the terms of their contracts, and most of them had carefully preserved the Chinese duplicates given them at the time of signing.

59. I am of opinion that on the whole the Company deal fairly by their employés, but that, in view of the numbers now on the Island, a Resident Magistrate should be appointed as soon as possible. The official duties of such an officer will probably not be heavy, but in the execution of them considerable tact will be necessary. In an isolated community such as this a rigid and unsympathetic administration is very likely to lead to combination on the part of the Chinese to evade or even resist the law. In such a case the very troubles might arise which the Company have so far succeeded in avoiding.

60. No ground has been cleared by the Company beyond that necessary for their dwellings, vegetable gardens, and rail lines. The proposed clearing of five hundred acres mentioned in last year's report would seem to have been an error. I was informed that no such instructions had ever been received, and certainly no such clearing has been undertaken. Timber is being cut, but only in and close to the Settlement, and only for building purposes. No timber has been exported since the departure of Mr. Ross, who used, I believe, to send a small quantity to the Cocos Islands. Most of the planks used in constructing the coolie lines were imported from Singapore so as to save time.

61. Until the output of phosphate is considerably increased I am of opinion that the Company will find it more profitable to develop their workings than to export their timber. This is the view held by the Manager. Later on, however, and especially if the proposed steam saw-mill is established, the question of forest reservation may arise. At present the trees are not cut, even on the ground from which phosphate is being taken.

62. The well-known fruit pigeon of the Island still exists in large numbers. Many of the men working at the top of the hill bring down one or two at the end of the day's work. These birds, however, are now certainly not so plentiful near the Settlement as formerly. They are still caught by the Chinese with a noose at the end of a long pole, but the price per bird has gone up during the last year from 8 cents to about 20 cents each. One Chinaman who did a good deal of bird-catching informed me that in the jungle away from the Settlement any number can still be caught, and that at certain times of the day the birds come to a small waterfall at the further end of the island, "like ants to the water, and one has only to put one's hand out to catch them." I succeeded in bringing four of these birds back alive to Singapore. They are now at the Botanical Gardens.

63. I saw a fair number of frigate birds flying in the cove, but hardly so many as I had expected.

64. The Chinese are practically dependent for fresh meat upon the birds they can catch, and the numbers will no doubt in time suffer a considerable diminution. It would be, in my opinion, quite impossible to enforce the observance of a close season. The Company's directors have, however, requested the Manager to do what he can in the way of preserving the rarer fauna of the Island from slaughter.

65. No records of meteorological observations have been kept, but I was informed that the barometer varies from 29·87 to 29·96, and that the average temperature is by day 83° and by night 77°. On the third afternoon of my stay the thermometer stood at 87°, and I was told it was the hottest day remembered.

66. In conjunction with the Manager I selected a site for the proposed quarters for a resident Government Officer, and I wrote a letter to him, a copy of which I enclose, asking him to reserve the site for the purpose.

67. It is intended to move the quarters for the Malays and Indians from the position they now occupy to a site between the truck line leading to the loading point and the new coolie lines. I arranged that a portion of this new site should be reserved for quarters for the proposed Police Force. The Police quarters will then be about 250 yards from the house of the Government Officer.

68. I would point out that, as all timber for building purposes has either to be sawn by hand or else brought from Singapore, it will be necessary to notify the Company some months before

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quarters for Government Officials are required. There are at present no buildings of more than one storey on the Island.

69. Practically no exploration has been attempted so far, but it is hoped that next year a road may be cut right through the Island, with branch tracks running out on each side. The Manager is thinking of engaging the services of a young native or Eurasian surveyor to assist in this work.

70. Two kinds of phosphate are found on the Island—lump phosphate and granulated phosphate, and I understand that the latter is slightly the more valuable of the two. Granulated phosphate has the appearance of coarse white sand, and so far none has been shipped, as it cannot be handled with the plant now in use.

71. In company with Mr. Meek I walked over all that part of Phosphate Hill which has as yet been prospected for phosphate. A large number of narrow pits have been dug and the quantity of phosphate discovered is enormous. In some cases at a depth of 40 feet the bottom of the deposits has not yet been reached.

72. To give some idea of the amount of phosphate, I append details of seven pits sunk in a row across the summit of the hill at intervals of 60 yards:—

Pit 1.—Lump Phosphate from surface to 6 feet.
Granular Phosphate from 6 feet to 11 feet.
Pit 2.—Lump Phosphate from surface to 2 feet.
Granular Phosphate from 3 feet to 26 feet.
Pit 3.—Lump Phosphate from surface to 22 feet.
Granular Phosphate from 23 feet to 36 feet, and limestone not yet reached.
Pit 4.—Lump Phosphate from surface to 13 feet.
Granular Phosphate from 13 feet to 22 feet, and limestone not yet reached.
Pit 5.—Lump Phosphate from surface to 12 feet.
Granular Phosphate from 12 feet to 24 feet.
Pit 6.—Lump Phosphate from surface to 7 feet.
Granular Phosphate from 7 feet to 11 feet.
Pit 7.—Lump Phosphate from surface to 6 feet.
Granular Phosphate none.

73. To a depth of three feet the lump phosphate can be picked out and will not need washing. For the next 7 feet washing will probably be advisable, although not necessary. Below that depth washing will be necessary until the granular phosphate is reached. This will never require washing and can be exported in bulk in its present condition.

74. Mr. Meek, to whom I am indebted for the above information, entirely declined to be responsible for any figures, but I understand that the latest estimate of the amount of phosphate on Phosphate Hill is 12,000,000 tons, and from what I saw I am not prepared to say that this figure, large though it is, is excessive.

75. No prospecting has been done in other parts of the Island, but it is known that phosphate exists at Murray Hill, as it was from there that the original samples were taken. Even in the unlikely event of phosphate in paying quantities not being found in other parts of the Island, it is evident that sufficient has already been discovered to give employment to the Company for a very considerable period.

76. The jungle is nowhere thick on the Island, and so far it has not been necessary to clear the ground from which the surface phosphate has been taken. Clearing will, however, probably be commenced shortly, and in time the summit of Phosphate Hill will be denuded of trees. The Manager proposes to plant gutta there after the removal of the phosphate. I think it is very doubtful if this plan will answer.

77. No shipping book is kept at present, but I obtained the following extracts from the Engineer's diary, giving the amount of phosphate already shipped:—

Date.	Quantity shipped.	Destination.
1899.	Tons.	
November 15th	10	Japan.
1900.		
January 16th	3,800	Hamburg.
January 20th	657	Japan
January 20th	15	Australia.
February 4th	700	Japan.
March 24...	355	Japan.
April 15th	145	Japan.
May 4th	610	London.
June 10th	3,700	Leith and Boness.
July 30th	3,825	Yokohama and Kobe.
August 11th	3,050	Stettin.
September 3rd	3,300	Grabow.
September 18th	3,800	Rendsburg.
October	4,050	Yokohama and Kobe.
Total... ...	28,017	

This includes the phosphate shipped by s.s. "Ayr," which was still at the island when I left.

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78. I presume that in future a regular shipping book will be kept.

79. The phosphate is not weighed at the time of loading, but no doubt a correct estimate can be obtained from the number of truck loads shipped and also from the displacement.

80. Large shipments to San Francisco and Australia will be made next year, and 16,000 tons has already been sold to Japan, to be delivered between June 1900 and June 1901.

81. I was informed that during last year the weather would have made loading impossible on 19 days only, 2 days being in November and 17 in February.

82. It is proposed to erect large covered sheds for storing phosphate close to the loading point. This, together with the new plant, will undoubtedly considerably accelerate the rate of loading.

83. I estimate that 37,000 tons will be shipped in 1900 and 175,000 tons in 1901. The latter figure is lower than the estimate of the Manager, who states most positively that he intends shipping 200,000 tons next year.

84. I was assured that the demand for phosphate was very elastic, and that only a very slight fall in price would result from the increased supply.

85. I could obtain very little information as to the price for which the phosphate is sold. This is the business of the London staff, and the Manager has simply to deliver the amounts sold.

86. I heard, however, that the price in London varies from 8½d. to 9d. per unit, a unit being 1 per cent. of phosphate in the stones delivered. The average percentage in stone sent to Europe is 87, while Japan is willing to accept a slightly inferior quality.

87. The royalty on exported phosphate may, I think, reasonably be calculated at $1 per ton.

88. In concluding my report I should like to observe that the Company are fortunate in their Manager. Captain Vincent, in addition to his other qualifications, has had considerable experience in the management of Chinese, and he is popular among them. I do not wish that anything in this report should be taken as implying that he is in any way careless of the welfare or safety of those under him. In a recently-started Settlement such as this there are naturally directions in which improvement is desirable, but, taking into consideration the smallness of the European staff and the extra work that has in consequence devolved upon him, I consider that he has done everything in his power to secure proper treatment for the men under his care.

89. I take this opportunity of expressing my thanks both to Captain Vincent and Mr. Meek for the help and information that they were kind enough to give me, as well as for the hospitality extended to me during my stay at the Island.

90. We left Christmas Island at 8 p.m. on Wednesday the 3rd, and arrived at Singapore about 8.30 p.m. on Saturday, the 6th October.

I have, &c.,

L. H. CLAYTON.

The Honourable the Colonial Secretary,
Straits Settlements.

MR. CLAYTON to CAPTAIN VINCENT.

Christmas Island,

October 3rd, 1900.

DEAR CAPTAIN VINCENT,

With regard to the site for the Magistrate's house, after talking with you, I think that the best site will be in the coffee garden on the right-hand side of the big rock in the centre of the ground, provided that water is found near.

For the proposed Police Station the site would be in the small site facing the white beach on the right-hand side of the tramway line leading to loading point.

I should be obliged if you could reserve these two sites for the purposes indicated.

Yours faithfully,

L. H. CLAYTON,

Commissioner.

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331	Fiji	"
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No. 352.

COCOS ISLANDS.

GOVERNOR SIR F. A. SWETTENHAM to MR. CHAMBERLAIN.

Government House, Penang.

23rd December, 1901.

SIR,

I HAVE the honour to forward copies of a report by Mr. W. L. Carter, Acting-Collector of Land Revenue, Singapore, who was deputed to make the annual visit to the Cocos Islands.

I have, &c.,

F. A. SWETTENHAM.

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Cocos Islands, 1901.

REPORT ON VISIT TO COCOS ISLANDS.

Land Office,
Singapore,
October 1st, 1901.

SIR,

I HAVE the honour to report that in accordance with your instructions I embarked at 8 a.m. on 4th September last on H.M.S. "Rosario" (Commander Hamilton). Weighing anchor almost at once we steamed through the Rhio, Banka, and Sunda Straits, passing Java Head early on the night of 7th September. I have since been told that we had a fair passage, with wind and sea in our favour, from that point to the Cocos Islands, which we sighted about 11 a.m. on 10th September. Entering the lagoon by the Port Refuge Channel we anchored at 1.30 p.m. close to Direction Island.

2. Mr. George Clunies Ross, the proprietor, was unfortunately absent, having left the Islands in June in order to return to London for the performance of an operation on his eyes. Mr. Sidney Ross, his son and representative, met us by deputy (Mr. Andrew Ross, his uncle) and invited us to be his guests ashore. I landed in the afternoon and took up my residence in the bachelor quarters kindly placed at my disposal.

3. The thoroughness with which my predecessors have done their work leaves little for me to report which will not be but a vain repetition of what they have better described.

4. On 11th September, accompanied by Mr. Sidney Ross, I inspected the Bantam Village and the workshops. The morning I spent with Mr. William Ross and the books. In the afternoon I walked round Settlement Island visiting the village of the Cocos-born, its extension, the school, and the Bantam Village. On 12th September, Mr. Roland Ross sailed with me over to West Island over about half of which we walked. On my return I was ferried over to Burial Island. On 13th September, Mr. William Ross showed me over the stores (food, clothes, medicine, etc.) and the rest of the forenoon was passed in the school and in the village of the Cocos-born. At mid-day three of the latter sailed me to and from Direction Island in a boat provided by Mr. Ross; and the afternoon I spent with the villagers, mostly among the Bantamese.

5. The most superficial acquaintance with the Malays of the Straits makes it inevitable that one should be impressed with the material advantages conferred on the Islanders by their residence in the Cocos. Clean and well-ordered villages; comfortable and in a native style substantial houses, to which the owners have had to contribute only the labour of construction, and that merely in part; a plentiful supply of good water at their doors; an abundance of fish hardly further off; vegetables such as the sandy nature of the soil permits and their own diligence

encourages; wood for boat-building, firewood, coco-nuts, coco-nut oil, and coco-nut sugar, without charge; a regular demand for male and female labour with a by no means illiberal scale of wages; and immunity from all direct taxation combine to form external conditions of life which should breed contentment even in the Malay heart.

6. While struck no less than my predecessors by the presence at the Cocos of much that should ensure the happiness of Malay people, it was not borne home to me that the Islanders were to a man prepared to admit or even recognised their fortunate surroundings. Malays, like the Irish, are generally in possession of a small verbal grievance—most commonly the complaint of poverty—and are perhaps really the happier for it. Here I came across no trace of a Thimlay Doola's perverting influence among the people nor did I find discontent common, but I did come across one case of it (Appendix A.). And, with the exception of those about the currency, the difficulties of correspondence with the outside world and the want of facilities for education, all the complaints made to previous Commissioners were, I believe, made also to me (Appendix A.). I refrain, therefore, from writing in the usual unqualified terms of the contentment prevailing among the residents of the Cocos Islands.

7. Since the visit of the "Phœnix" the proprietor has received from Java but one batch of labourers (10 men, 11 women, and 2 boys), of a thoroughly unsatisfactory character. Recruited near Batavia, passed by a Government doctor, and shipped by Mr. Ross' agents in Batavia, they arrived in the Cocos in February, 1900, of poor physique and sickly (*see* the death returns), introducing with themselves venereal disease, which Mr. Ross hopes he has been able to stamp out. Believing that, as on a previous occasion, the persons passed as fit were not the persons shipped to him, he intends that in future one of the family shall always attend to the selection and shipment of the labourers. Anxious to obtain a further supply of labour, he is about to apply to the Netherlands Indies Government for permission to recruit, but will make the Bantam country once again the scene of his operations.

8. The proprietor would be glad to see such an increase in the population as would render the Islands independent of the outside labour market, but judging from the population return hereto attached (Appendix B), it will be long ere the attainment of this desire. In 1885, there were 516 souls on the Island. There are now 671, or 34 more than the Census return shows. From this, two little girls and one woman were omitted in error, and to its total should be added the 5 Europeans and 26 Chinese who have recently arrived on Direction Island. Taking account of permanent residents only, the males are in a minority of nearly 50. Mr. Andrew Ross says that at present the disparity in the numbers of the sexes has presented no difficulties, occurring as it does at very early ages. With all due deference to a

Cocos Islands, 1901.

modern author who asserts it, he does not consider that females were formerly too few nor on the other hand that the superfluous woman problem is likely to require solution in the Cocos—as to the latter, figures are against him.

9. The present health of the people seems very good. There have been since Sptember, 1899, one or two cases of beri-beri of a mild type, but no deaths from this cause. During our stay, I heard of one case of asthma (Mr. Charles Ross) and came across two or three persons who were being treated for sprains, cuts, etc., by Mr. Andrew Ross, and two men confined to their houses by minor ailments. The majority of the men looked hard and muscular, the women and children plump and cheerful, while among the latter I observed (on West Island) only one of those disfiguring skin diseases so obtrusively common in ordinary Malay villages. Goitre, however, is as common as ever, and Dr. Bolster, of the "Rosario," kindly prescribed in one case where the growth was causing discomfort by pressure on the wind-pipe. In the store there was a considerable supply of the medicines most commonly employed in the East, but occasion for their use is, Mr. Andrew Ross finds, infrequent. No medicinal remedy is, in his opinion, as efficacious against beri-beri as a change of locality, but he would like to try a more complete change of diet than is possible in the Cocos, He does not believe the origin of the disease is in the rice, either in its quality or in the absence of the silver thread, etc., and the main efforts of the family are directed to preventing its importation in the persons of new comers. The people concur that it is introduced and not native disease that attacks them.

Small-pox does not exist in the Cocos, but in view of the possibility of its introduction, vaccination is practised; perhaps a little spasmodically, as I understand the last successful inoculation was 1892. Since then the lymph used has for some reason or other been ineffective. The proprietor is sending out a fresh supply in the annual shipment of European goods, but as Mr. Andrew Ross has some 200 vaccinations which he would like to perform as soon as possible, an interim supply from the Straits would be very gratefully received.*

Where there is no specific disease (no fever, etc.), there is naturally no markedly unhealthy season, but the older Bantamese associate the months of September, January, and February, (when flies are most numerous) with sickness, and are to some extent supported by the figures which follow.

10. With an absence of definite illness it is disappointing to find a death-rate as high as 30·76 per 1,000 per annum, but this is what the 40 deaths, which have occurred since the visit of the "Phœnix," give in a population taken as 650 in each year. The victims were in 27 cases males, in 13 females, and of the 40 no less than 33 were infants of from a few days to a few months in age. The deaths occurred in January, 3; in February, 7;

* Since sent

March, 5; April, 2; May, 1; June, 1; July, 3; August, 4; September, 7; October, 3; November, 2; and December, 2. In Appendix C, I give such details as I could gather of the adults' deaths.

11. In the last two years, 17 marriages have been registered, the contracting parties being in 11 cases Cocos-born on both sides, and in 6 Java-born.

There has been one divorce or separation of Java-born people. In this case the union had been childless, the man had lost his sight and was returning to Java, while the woman had perhaps already got on with a new love. In any case, within two days of the divorce she married again. This was this year, on the 1st of April, a date which the Western mind might not have regarded as auspicious for any contract.

12. In cultivation, no experiments and but few extensions have been recently made. In the main, planting has been directed to filling up the gaps caused by storms or beetles. By the former great damage was inflicted on two occasions in January this year, the trees on South Island (where it is supposed 11,000 trees were destroyed) and on the South of West Island being the greatest sufferers. On South Island both kinds of beetle again worked great havoc. In the belief that these breed in the tree itself and not in heaps of coco-nut refuse round it, the only remedy the proprietors apply is the drastic one of cutting down and burning the trees. On the Islands, 11 varieties of coco-nuts flourish, South Island producing the heaviest nuts and West Island the greatest number. Mr. Sidney Ross thinks that some 7,000,000 nuts are collected annually, and that the average yield from one tree is 25. The nuts, however, being allowed to fall and not being picked, as in the Straits, an accurate estimate per tree is impossible, but here a much higher figure than 25 is usually quoted, over 100 nuts per tree being, under favourable circumstances (proximity to human habitation, etc.), not uncommon. The pernicious—from a piscicultural point of view—practice of manuring the trees with immature fish does not obtain in the Cocos as it does in Province Wellesley.

13. Besides Settlement Island, West Island, and now Direction Island alone are permanently inhabited, but nuts are picked up on all except North Cocos, the difficulties of approach to which have for some years kept the nutters from it. On the centre of West Island I found 7 families, and 5 single Javanese engaged in preparation of copra. Their houses are less good than those on Selma where they have their real homes. Cats, ducks, pigeons, fowls, and children were numerous and healthy, but it was on one of the latter that I observed the skin disease referred to in paragraph 9. Except that a Java-born man who after 20 years had become a settler was dissatisfied with the delay in returning him to his country, whither he now wishes to go, none of these people complained of the conditions of their life, though in some aspects harder than those of the main-islanders. For the greater facility with which nuts can be got on West Island,

Cocos Islands, 1901.

a minimum of 2,500 per week is demanded from those who labour there as against 1,500 from those who reside further from the scene of their work; and the labour of the women as shellers is not paid as on the main island, but is taken to balance the proprietor's expense in transferring the nuts or copra to the main-island stores. Here there is storage for 80 tons of copra only, supplemented by stores for 110 tons at the north of the Island, where also Mr. Roland Ross has a poultry farm of some 1,500 fowls (mostly tailless), and a bungalow to which he resorts for the week end. On Horsburgh Island his brother has a similar but smaller establishment. On Direction Island, besides the Norwegian captain of the schooner "Tweed," are established Mr Cameron and his four assistants in the Telegraph Company, with 26 Chinese serving in various capacities. In residence less than a month, they could perhaps hardly be called established, but they were daily employing their talents in new directions and seemed to enjoy it. An old copra shed lent by the proprietor had been converted into comfortable quarters, and their temporary office was almost ready against the arrival of the S.S. "Scotia," expected on 20th September with cable and instruments. At no distant date they were looking for the coming of the S.S. "Anglia" to complete the connection (with Mauritius), and to bring their staff up to 17, its complement as at present fixed. With abundant stores, sheep, ducks, fowls, etc., of their own, they are practically independent, and I gather that the proprietor does not desire more than mere social intercommunication between this and the other islands—against the Chinese the prejudice is very strong. At present their only water is procured from Horsburgh Island in Mr. Ross's water boats, but the "Scotia" is bringing condensers which will put an end to this inconvenience. Need for extra labour will not, I hope, arise, as I understand that (despite paragraph 2 V. of Commander Adam's report in 1885), a surplus supply of labour is not available, though Mr. Ross has managed to render considerable assistance in establishing the post. It will be interesting to observe how far the proximity of persons who do not come under the Cocos Settlement, and more frequent communication with the outside world through the periodic visits of telegraph ships, will influence Mr. Ross's people.

14. The rates and method of payment remain as previously described, nor is there any great variation in the wage bill month by month, somewhat less than 3,000 Cocos guilders being the average. Between the 1st January and the 1st September, 1900, the total earned came to 17,614f.* (Cocos), in the same period this year to 21,336f., the people having displayed rather more diligence in 1901. On the evening of the 13th September I examined the week's pay earned by a gang of 15 residents on the main Island—a random selection, as this was, probably is a

* The sign f signifies guilders. The Dutch guilder is worth about 1*s.* 8*d.* The Cocos currency guilder, which is a sheepskin note, is worth ⅔ths of a Dutch guilder.

fair criterion of what all do and all earn. In the week the nuts delivered at the store numbered 40,733 (an average of 2,700 per man), the wages totalled 80f. 40 cents, an average of 5f. 30 cents per man, ranging from 6f. 75 cents to 4f. 25 cents—to which should be added one day's pay at the published day-pay rate if the men elect to put in a half day on Saturday. The nutting wage being 1f. per 500 nuts, and there being no smaller token than the 25 cents note, the proprietor gets the benefit of all nuts insufficient to earn this payment.

15. Of the Java-born, 15 have advances still to pay off, their total indebtedness coming to 1,430f. 25 cents, varying between 188f. and 10f. 50 cents a man, while the proprietor has had to write off as irrecoverable, 616f. 75 cents.

Seventeen of the Cocos-born are still in his debt, the most deeply so owing 125f. the least 2f. 25 cents, and the total amounting to 625f. Here, too, an item of 121f. has to be written off. Appendix D. gives details, with main causes of indebtedness.

16. I was unable to get the total standing to the credit of persons still at the Cocos, but the 9 Bantamese who have in the last two years returned to their country and the 3 Cocos-born who have settled in Java took away total savings of 1,807f., details of which are given in Appendix E.

17. Of crime, minor offences, and the punishments inflicted there is no record. Mr. Sidney Ross informs me that the former has not occurred and the last two have been infrequent. Where inflicted, punishment has been as heretofore corporal or by fine, following hot-foot on the offence where possible. The class of punishment most likely to be effective in each particular case is adopted. The fines range from 1 to 7 days' pay and the corporal punishment rarely exceeds 12 stripes, inflicted, in the case of adults, on the shoulders.

18. On both the occasions when I visited the school, the 5 boys shown on the register were in attendance. The eldest, Zanlay, having been there four years is more advanced than his school-mates, two of whom joined just before and two just after Mr. Baxendale's visit in 1899. The register shows on the part of the parents a more than Malay want of appreciation of the benefits of education, of which perhaps none but an elementary knowledge of arithmetic would appeal in a practical form to the Islanders. Under the circumstances the reading, writing, dictation, etc., of the 5 were creditable, and Zanlay knew a little general geography well; but to Cocos boys calculations in measures they do not employ, and the science of locating on the map places which to most of them are the merest of names and nothing more must appear singularly dull and profitless.

19. In 1900 no copra was exported. In January, 1901, the Norwegian ship "Michael Berentsen" was chartered to convey to Lisbon or St. Petersburg (according to the market) 862 tons,

Cocos, Islands, 1901.

but the place of sale and the actual price obtained was not known. Between £13 and £14 per ton was expected, and the increased freight would almost eat up the profits held out apparently by the higher prices at the more distant market. Another 450 tons was in store ready for export. Mr. Ross does not think they can make more than 1,000 tons per annum.

20. Roughly, the last two years' imports have been:—

			f. Java.		Cents. Java
Rice	...	3,500 pikuls	= 19,250	or per lb.	4⅛
Sugar	...	10,000 lbs.	= 1,200	„	12
Flour	...	20,500 lbs.	= 1,200	„	6
Tea	...	320 lbs.	= 48	„	15
Tobacco Fine cut	}	60 baskets	= 840	„	

Cake-tobacco and cloth from England, also spices, etc., have been imported to meet the needs of the place, but no opium, deleterious drugs or intoxicants, except such wines and spirits as were required for the proprietor's own use.

In the store was a considerable quantity of materials, mostly shirtings, tobacco of both kinds, sugar, tea, flour, a very large supply of rock salt, and rice sufficient for four months' consumption.

21. At the store the retail prices charged for articles of common use are shown below under column (1), column (2) showing what I understand to be the purchase price wholesale in Batavia, and column (3) the Singapore retail prices.

Sale price at Cocos Store.	Purchase price in Batavia.	Purchase price in Singapore.
Rice per 12 lbs. = 1 f. Cocos *i.e.* per lb. 8 cts. = per lb. *7 cts. Java or *6 cts. Straits.	4⅛ cts. Java.	2¾ cts. Straits.
Flour per 12 lbs. = 1 f. Cocos *i.e.* per lb. 8 cts. = per lb. *7 cts. Java or *6 cts. Straits.	*6 cts. „	6 cts. „
Sugar per 25 lbs. = 13 f. Cocos *i.e.* per lb. 52 cts. = per lb. 43⅓ Java or 36¼ cts. Straits.	*12 cts. „	6 cts. „
Tea per 1 lb. = 1 f. Cocos *i.e.* per lb. 100 cts. = per lb. 83⅓ Java or 70⅞ Straits.	15 cts. „	56 cts. „

* Signifies approximately.

The store prices reduced to Straits currency are much higher in the case of rice and sugar than those in column 3. The same in Java currency than those in column 2, except as regards flour, the difference between the purchase and sale price of tea (15 cents and 83⅓ cents) being so large that I think too low a purchase price must by mistake have been quoted.

22. Since their re-introduction some three years back, the small herd of goats has increased to 36, but the other importations, Christmas Island pigeons, ground-thrushes, etc., have at the best only maintained their numbers. The goats being, as the Direction Island sheep are, penned for the most part and artificially fed do not at present promise to provide an occasional variation to flesh diet open to the whole people.

Rats are combated as before without any marked diminution in their ravages. Their existence is perhaps facilitated by the coconut refuse lying about in heaps. It at least affords them nurseries, and, when dislodged from the tree-tops, temporary camps of refuge, while the dust and spines abounding in it punish many of the dogs, their pursuers, with blindness.

23. During my visit, immense shoals of young mullets were to be seen close in shore. Of the kitchens inspected, only one was without its string of sun-dried fish against a chance failure of the fresh article. The only two fishermen I saw landing had obtained in very short time catches of 9 lbs. and 21 lbs.—and generally fish is as abundantly plentiful as ever. Individual choice alone regulates the size of the mesh of the nets used, but it is hard to see how the act of man is in the Cocos likely to affect the fisheries very injuriously, especially when it is remembered that there is no use (as in the Straits) of immature fish. Nor do natural causes appear much more dangerous, Mr. Ross informing me that a peculiar periodic pollution of the sea which formerly had wide-spread effects is now much less frequent in its occurrence and far more confined in its operation. For the capture of all kinds of fish a harpoon with a self-closing barb (believed locally to be the invention of the proprietor) is largely used, and is the only weapon employed against sharks. The pursuit of the latter is as exciting as it is profitable, and only recently a boat was stove in by a wounded shark. Their solid value is in their oil, in their skins as a substitute for emery paper, and in their bodies as fertilizers. Many have been buried in Mr. Ross's garden.

Singapore, where on my return I found a common fish (*ikan parang*) selling on one of the best fishing grounds for 80 cents, cannot compare with the Cocos.

24. The strength of the prevailing winds and currents, the necessity for boats of suitable form and rigging, and the great value of the Ross family's local knowledge of channels, etc., are emphasized by the following incidents. Late in the evening of August 17th, the telegraph station tongkang, or Chinese lighter,

Cocos Islands, 1901.

returning under sail from the Island to the "Giang Ann" failed to make that vessel. Unable to beat up against the wind she drifted away astern, and Captain Follett, in the ship's boat, was unable to tow her back, nor could he rescue all her (4 European and 15 Chinese) passengers. Taking such as he could, and of compulsion leaving the rest adrift, he did not get back to the ship till 10 p.m., when darkness made steaming out after the lighter impossible. At day-break on 18th August, the "Giang Ann" piloted by Mr. Andrew Ross proceeded to the rescue, and about noon the missing men and the lighter were recovered some 16 miles out, a distance which was diminished by a contrary current setting them back towards the Cocos in the morning. Somewhat similarly, two Java-born started out one night in January in a boat which became at once beyond their control. After being carried out beyond Horsburgh Island they were on the following morning picked up by Mr. Andrew Ross.

It is the generally expressed opinion of the Islanders that the lagoon is shallowing all over, and Mr. Ross is convinced that the small shoals guarding the narrow entrance to Port Refuge are not now covered with the depth of water shown on the chart. Buoys at these points and at a leading mark on Workhouse Island would greatly simplify the navigation of this channel.

It was again impressed on the Commissioner that September was, as regards weather, the best month for his visit.

25. The construction of Mr. Ross's new house has gone on far, and the next trip of the "Tweed" bringing 31 tons of teak, should almost provide material for its completion.

The schooner named, and the yawl "Clunies Ross" still constitute the Cocos ocean-going fleet, but smaller craft, from life to surf boats, are countless, and Mr. Ross has four more (whalers, etc.) now in the yard in process of building.

26. Beyond the two storms referred to in paragraph 12, the meteorological readings tabulated in Appendix F. call for little comment. These readings are taken practically but once a day now, though on 15th and 29th January, 1901, the days of the cyclone and heavy storm, I found four and five readings. The variation of the first day was between 29·97 and 29·80 (Barom.) and 76—77 (Thermo.) with wind S.S.E., S., S.S.W., and S.W.; and on the second between 29·94 and 29·69 (Barom.) and 76—78 (Thermo.) with wind S.S.W., S.S.W., S.S.W., W., and N.W.

27. There is still no rain-gauge, likewise, except the telegraph flagstaff on Direction Island, no flagstaff. Commander Hamilton has suggested to me that the most suitable sites for signal stations are the North point of Horsburgh and the South point (near Burton Point) of West Island. None of the islands have any elevation. The proprietor would, I imagine, if only one station is formed, prefer that it should be on the best site for a signal station, *i.e.*, Horsburgh Island. Being uninhabited, none of Mr. Ross's people could become unsettled by mixing with others

living under different conditions, and their water supply would be near the signallers—advantages not offered by West Island. Telephonic communication between the station and Direction Island would be cheap and desirable.

28. Before leaving I made known that I would arrange for the delivery of any letters which the people desired to send to or *viâ* Singapore, but was only entrusted with one, the addressee of which will, owing to insufficient description, be very difficult to find.

29. Information was freely given, boats provided, and their usual generous hospitality displayed by the Ross family. On my last night, Mrs. Ross kindly afforded such of the officers of the "Rosario" as could be present and myself the pleasure of witnessing a Cocos' ball. This consisted mainly of reels and country dances, taken part in by the Islanders, but omitted the more violent efforts, such as the "Hunting of the Fowl," etc., described by Mr. Leach and Mr. Farrer.

30. After an absence of rather less than three weeks, I arrived in Singapore on 21st September, and it only remains for me to record on paper my thanks to all whom I met on the trip, to my hosts and hostessses at the Cocos, to the officers of the "Rosario," and to Commander Hamilton for his unremitting attention to me both coming and going.

I have, &c.,

W. Langham-Carter,

Acting-Collector of Land Revenue,

Singapore.

Cocos Islands, 1901.

APPENDIX A.

Complaints.

1. The stock complaint of poverty prefaced a good many of the people's conversations with me. Their conditions of life, paragraph 5, the savings of those who have recently left the islands, paragraph 16, and the wages paid, paragraph 14, are perhaps a sufficient comment on this.

2. Many of the women complained that they could get no clothes. External evidence was, I am glad to say, against them. They were in fact better dressed than the Malays one sees in the Straits, while I found in the store several cases of clothing, mostly shirtings, awaiting demand. Mr. Sidney Ross, however, told me that having exhausted their European stock of sarongs or native skirts, they were temporarily without a reserve of these, 600 ordered in Batavia to keep them going till the next shipment from Europe having failed to arrive.

3. The monotony of their daily diet was alleged to be irksome. Variation however must of necessity, in the Cocos, depend largely on the energy of the people themselves, displayed in the cultivation of vegetables, the breeding of fowls, &c. In this connection the prohibition of the import of gunpowder was quoted as rendering nugatory the possession of guns, (in many cases Mr. Ross' gift), and impossible all change of diet in the flesh of sea-fowl, &c. Through Mr. Sidney Ross I learnt that as a temporary measure, the introduction of gunpowder had been forbidden for some months. Not long before, a party of bird-shooters having with difficulty been rescued when outside the reef, it became necessary to veto the crossing of the reef by the fowlers. Another party had shortly afterwards disregarded the prohibition and similarly imperilled themselves. The ruling family had, therefore, temporarily stopped the supply of gun-powder as a punitive measure, and for the protection of the people themselves.

4. Want of shops, want of various articles (coffee, white sugar, white rice, &c.,) are probably another form of the complaint that the prices charged in Mr. Ross's store are excessive. In paragraph 21, I compare purchase and sale prices, also current Singapore prices. An explanation of high prices has been made by Mr. Birch and others.

5. Several persons, mostly Java-born, spoke to me of the difficulties in the way of leaving the islands for good, and one or two of the Cocos-born desired more frequent holiday trips to Batavia than they could get. Taking particular cases, the reasons for the continued presence at the Cocos of two Bantamese (Aksa and Ali Basah), who with over 30 years' service had enrolled themselves as Cocos citizens, appeared on close enquiry to be in the one case a reluctance to leave without taking descendants (who were not anxious to go) to support him in Java, and in the other the absence of any savings to keep him alive elsewhere. The suggestion, however, that persons were detained against their will and without power of redress, was so particularly unpleasant that I referred to Mr. Sidney Ross for information as to the customs that governed leaving the Islands. He assured me that imported labourers were in no case detained beyond the expiry of their contract and the discharge of their debt (advances), and that Cocos-born had only to convince him that, with some definite work in view, they desired to settle permanently elsewhere. He was anxious that people should not leave merely in search of a job, for fear of their return later to the Cocos when less desirable as residents than before. After quoting the old Singapore—settled Cocos families and the men referred to in paragraph 16, he admitted that the constant employment of his ships in satisfying the general needs of the Islands, was frequently the cause of a considerable interval between the preferment of a request to leave and its satisfaction. A record of the date

of application to leave, of the reasons for refusal or postponement of granting of permission to leave, and the date of final despatch of applicant would at least be not uninteresting.

6. A woman named Pun, one of the last imported, and her Bantamese husband Talip were distinctly unhappy—they had lost their first-born two days before my arrival; Talip was feeling rather overweighted with his wife's advance in addition to his own debt, and he had just been punished for disobedience, after warning, to an order. Pun complained that on enlistment no information was given her as to the kind of place the Cocos was nor of the cost of living, and that she came expecting to find small shops, long credit, &c., as in the vicinity of her native Batavia. Imported labourers still sign similar contracts to those described by Mr. Birch in 1885, and Mr. Trevenen in 1888; and though this matter more nearly concerns the Government of the Netherlands Indies whose subjects these people are, it is not undesirable that to the contract should be appended a note explaining some of the conditions of life peculiar to the Cocos—such as the necessity for procuring most articles of food and dress at the proprietor's store and at such prices (some of which might be quoted) as he finds possible. Misunderstandings on like points can only breed discontent.

7. It is significant that neither the teacher, who, besides being the most intelligent of the Islanders, has also lived elsewhere, nor the pensioner, who has had the longest experience of residence on the Cocos, had any complaints to make, though the former had the not uncommon desire for more holiday trips. Shortly, the real Cocos-born had little to complain of, while the Java-born struck me as less happy in their adopted country.

APPENDIX B.

Population of the Cocos Islands, 11th September, 1901.

Nationality.	Under 1 Year.		Under 2 Years.		Under 3 Years.		Under 4 Years.		Under 5 Years.		5 to 10 Years.		10 to 15 Years.		15 to 20 Years.		Over 20 Years.		Total.		Grand Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Europeans ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	—	7	—	7
Cocos Islanders ...	12	20	5	15	4	16*	7	7	15	21	43	37	25	40	30	32†	108	133	249	321	570
Bantamese ...	—	—	—	—	—	—	—	—	—	—	—	—	–	—	—	—	45	23	45	23	68
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	26	—	26	—	26
Other Races ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grand Total...	12	20	5	15	4	16	7	7	15	21	43	37	25	40	30	32	186	156	327	344	671

* Two omitted in Census Return.

† One omitted in Census Return.

APPENDIX C.

DEATHS OF ADULTS.

Sadikin.—Cocos-born male, aged 27, on 11th February, 1900, of consumption.

Eleanor Syvertsen.—Daughter of Charles Ross, aged 28, on 4th June, 1901, the result apparently of child birth. After the birth of her child some twelve months earlier, she had never been well.

Musnor.—Cocos-born male, aged 29, on 5th February, 1901, of consumption.

Sali-in.—Javanese, male, arrived sickly in January 1900, and died on 3rd March that year, age at time of death and cause of latter not known.

Savan.—Javanese, male, as above, except that he died on 8th April.

Mahilon.—Bantamese, male, apparently about 50 years old. After completing several contracts, had married a Cocos-born woman and became a permanent settler. Died of general debility on 19th July, 1900.

Seipa.—Cape-born Malay, female, one of the earliest settlers, died on 1st December, 1899, of old age. Death accelerated by trouble with her one tooth gradually affecting her throat.

APPENDIX D.

INDEBTEDNESS.

Java-born.

	f.	cts.	
Jahari	66	75	advance as new cooly.
Awang	82	00	advance to wife when new coolies.
Asan	82	25	
Masin	82	00	
Inang	188	00	advance to self and wife, both new coolies.
Mian	66	00	advance as new cooly.
Madien	96	00	
Mumang	96	00	
Outjien	177	25	advance to self and wife as new coolies.
Stroditoroms	66	00	advance when new cooly.
Saliman	10	50	
Seman	137	50	fresh advance on marriage of old cooly, and wife's advance.
Talip	122	00	fresh advance on marriage of old cooly, and wife's advance.
Sarion	123	50	advance to wife when new cooly.
Sostiko	34	50	
	1,430	25	

The 616 f. 75 cts. written off was in seven items, and the occasion was death except in one instance where a useless man owing 96 f. was returned to Java with a gift of 15 f.

Cocos-Born.

	f. cts.		
Akop	64 80	Advances to cover holidays, weddings, or funerals.	The item written off was 121 f. owed by Musnor deceased.
Jasidin	35 00		
Sulong	10 35		
Arsat	6 00		
Sakum	70 50		
Acmian	2 25		
Gilbert	4 75		
Amara	25 00		
Ackim	84 00		
Aidai	20 00		
Moss	4 50		
Aneer	126 00		
Jaman	59 30		
Rakebing	5 80		
Idit	60 00		
Wallace	30 00		
Demun	16 75		
Total	625 07		

APPENDIX E.

SAVINGS.

Bantamese.

7th December, 1899,	Panie	...	f330
7th December, 1899,	Jamid	...	52
7th December, 1899,	Aman	...	88
7th December, 1899,	Arnie	...	222
8th October, 1900,	Saleh	...	118
8th October, 1900,	Miena	...	221
7th May, 1901,	Abdul	...	77
7th May, 1901,	Damin	...	254
7th May, 1901,	Pongot	...	15 (gift).
		Total...	1377 = 1377f.

Cocos-born. (*Planting at Anjer under Captain Sem*).

Kasimin	...	...	...	...	167
Nahimun	...	...	...	...	227
Humbi	...	...	...	...	36
				Total...	430 = 430
				Grand Total	1777

APPENDIX F.

Meteorological Readings.

Month.	Barometer.		Thermometer.	
	Max.	Min.	Max.	Min.
September, 1899	31·3	29·06	84	72
October, „	31·4	29·09	81	73
November, „	31·00	29·5	77	75
December, „	30·03	28·98	82	75
January, 1900	30·6	29·5	79	77
February „	30·1	29·84	84	77
March, „	30·1	29·82	84	75
April, „	30·00	29·84	85	77
May, „	30·7	29·86	85	76
June, „	30·7	29·82	82	72
July, „	30·3	29·87	84	73
August, „	30·8	29·3	77	74
September, „	30·8	29·5	77	73
October, „	30·7	29·96	77	73
November, „	30·55	29·85	78	75
December, „	30·5	29·6	79	75
January, 1901	30·7	29·69	79	76
February, „	30·2	29·7	80	74
March, „	29·99	29·74	85	76
April, „	30·2	29·9	80	75
May, „	30·4	29·89	81	75
June, „	30·08	29·84	81	75
July, „	30·06	29·91	79	76
August, „	30·12	29·97	79	74

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No. 370.

COCOS ISLANDS.

REPORT FOR 1902.

(For Report for 1901, *see* No. 352.)

Presented to both Houses of Parliament by Command of His Majesty.

November, 1902.

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21	Dominica	Report on Caribs.

No. 370.

COCOS ISLANDS.

(For Report for 1901, *see* No. 352.)

GOVERNOR SIR F. A. SWETTENHAM to MR. CHAMBERLAIN.

Government House, Singapore,
13th September, 1902.

SIR,

I HAVE the honour to forward copies of a Report by Mr. L. H. Clayton, District Officer, Christmas Island, who was deputed to pay the annual visit to the Cocos Islands.

2. The report shows that the Islands continue to prosper under the paternal rule of Mr. George Clunies-Ross, and that the people are on the whole well-to-do and contented. There are no new developments which call for special remarks.

I have, &c.,
F. A. SWETTENHAM.

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REPORT ON VISIT TO COCOS-KEELING ISLANDS.

Christmas Island,

July 28th, 1902.

1. On Wednesday, July 9th, H.M.S. "Vestal" arrived at Christmas Island and according to instructions I left in her for the Cocos-Keeling Islands at 6 p.m. the same day.

2. We had a fair passage and arrived at our destination on Friday, July 11th, at 6 p.m., when Mr. George Clunies-Ross came on board and the ship was under his direction anchored in the inner harbour.

3. Mr. Ross kindly invited me to stay with him and I took advantage of his offer, landing on the following morning and spending the remainder of the day in conversation with him and inspecting the Cocos and Bantamese villages. I have nothing to add to what has been stated in former reports as to the excellent condition of these villages. The Cocos-born people are tidier and more attractive than the Bantamese, and, in the same way, the village of the former presents a better appearance, but in neither case did I see anything to call for adverse comment.

4. On Sunday I visited Direction Island, a portion of which has been leased to the Eastern Extension Telegraph Company. There are resident there at present in temporary buildings Mr. Cameron and 9 European assistants, with 14 Chinese servants and 4 Malay boatmen. In addition to these there are 3 Europeans and 39 Chinese engaged on the erection of permanent buildings for the staff. Eight or nine houses of various sizes will be required, and I should imagine it will be over a year before the staff are finally settled down. The chief difficulty that they have encountered has, I understand, been the lack of water. No water is obtainable on Direction Island, and at first they were supplied from the other Islands by boat. A condenser has now been erected, and as the buildings are completed water will be collected from the roofs. The yearly rainfall is almost certainly over 80 inches.

5. There has been a good deal of beri-beri among the Chinese workmen employed by the Telegraph Company. Four have died and several more have been sent back to Singapore, two dying on the voyage. I understand that it has been decided to send back whenever opportunity occurs all those showing signs of beri-beri to Singapore. I had a conversation with the Chinese and they expressed themselves as quite contented and said that they were well-treated in every way. A trifling complaint about the renewal of their stock of opium was easily arranged.

6. A medical man, Dr. Curtis, has been engaged by the Telegraph Company, and he arrived there a few months ago. Previous to his arrival cases of illness were diagnosed and treated by telegraph from Perth, Western Australia.

7. Monday I spent in looking through the books, stores and registers with Mr. William Ross. Since the date of the last report there have been 24 births and 21 deaths, of which latter 11 were those of infants. These figures include the Chinese on Direction Island. The birth and death-rate of the inhabitants exclusive of the employés of the Telegraph Company works out at 38 and 22 per mille per annum respectively (approximate in both cases). Thirteen marriages have been registered during the year, and no divorces. In two cases the couples were imported Bantamese. Nineteen Bantamese were recruited from Java during the year, and four left for their own country with their wives and families. The amounts taken back by these men were *f. 20, f. 93, f. 183 and f. 155, respectively, and they had lived on the Islands for periods ranging from 7 to 11 years.

8. One of the Bantamese complained that he wished to leave but was not allowed to do so. I found by the books that he had paid off his own debt (f. 96) easily in about two years, and had immediately married a woman with a debt of f. 96. He had not yet paid this off, and he admitted that he had been told before his marriage that he would have to do so.

9. I looked over the wages bill for the past week and came to the conclusion that a labourer can easily earn wages sufficient to keep him in comfort with a considerable balance for emergencies.

10. Beyond trivial offences there has been no crime on the Islands during the last year. There have, however, been one or two cases of suspected incendiarism. In no case has it been found possible to detect the culprit, and only slight damage has been caused. The alarm bell was rung at 11 p.m. on one night of my stay for a fire and I immediately accompanied Mr. Ross to investigate. The fire had, however, been extinguished before our arrival by the neighbours.

11. The general health of the Cocos people and Bantamese has been good, and Dr. Curtis, who by arrangement attends to them as well as to the Telegraph employés, informed me that with the exception of a case of yaws, now recovered, there had been very little occasion for his services since his arrival. He had, however, vaccinated some 80 of the natives. I was in no way surprised to hear that he thought very highly of the sanitary condition of the villages. I found only one case of beri-beri, a Bantamese, who had according to his own account been ill for three years. He was able to get about and do light work.

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* COLONIAL OFFICE NOTE.—The sign "f" signifies guilders. The Dutch guilder is worth about 1*s.* 8*d.* The Cocos currency guilder, which is a sheep-skin note, is worth $\frac{4}{5}$ths of a Dutch guilder.

12. I visited the school and found four scholars, all of whom were able to read and write and do simple arithmetic. Rajeli, the schoolmaster, admitted that boys who had passed through the school derived very little subsequent advantage from the knowledge they had acquired, and that is no doubt the case so long as they remain on the Islands. As has been stated in former reports, Mr. Ross looks with a somewhat unfavourable eye upon education for his dependents, as he thinks that the effect produced is far from good. As I pointed out to him, even if he is right in that opinion he has no cause for anxiety as the large majority of the inhabitants appear to share his views.

13. In order to avoid the necessity of chartering ships to take the copra away, Mr. Ross has recently purchased a sailing vessel—the "Broughton," a barque of 571 tons register. The only shipment of copra made in the past year was one of 706 tons sent to Europe by this vessel in May last. The quality of the Cocos copra appears to be as high as ever, as this shipment fetched the excellent price of £18 5*s*. per ton, the highest figure reached for some years. There have been no other exports. About 190 tons of copra were in store ready for shipment, and I was told that 15 tons were produced in an average week's work.

14. The Islands have again suffered from a cyclone, the severest since 1862. It occurred on March 4th last, and the news of it reached Mr. Ross at Singapore on his return from Europe in April. At the date of my visit, although work had been going on for four months in setting the place to right, the signs of it were visible on all sides. Five houses were destroyed, with fortunately no loss of life, and many thousands of coco-nut trees were uprooted or broken. It was strange to see how, in places, notably on Direction Island, a lane seemed to have been ploughed right through the trees, leaving hardly one in five standing. In addition to this nearly all the fruit trees were destroyed, and Mrs. Ross had her garden completely wrecked. The loss in capital to Mr. Ross must be very great. I fancy, however, that the number of coco-nut trees still left is considerably greater than can be worked with the labour at his disposal.

15. I visited West Island on Tuesday in company with Mr. Sidney Ross. Eleven families of Bantamese live there. Some of the men were out at work, but I saw all the women. They had a great deal to say for themselves and gave a graphic account how at the worst part of the recent cyclone everybody had run into the lagoon and stood up to their necks in water as the only place safe from the falling trees. They complained as usual about their clothes but seemed otherwise contented. The lagoon here, as in other places, is said to be rapidly filling up.

16. On Thursday a party of bluejackets and marines landed from H.M.S. "Vestal" and carried out a small sham fight, which

was watched with great interest by nearly the whole population dressed out in their best. I share Mr. Carter's opinion, as given in last year's report, that the difficulty of obtaining nice clothes is obviously not insuperable. A sailing race was also held for prizes given by Commander MacHutchin, and the winners had their choice of a piece of serge or a pair of substantial boots as prizes. The serge was chosen as the men explained that boots were of no use except to dance in.

17. On Friday, the ship left for North Keeling with Mr. Ross on board. We reached the Island at about 5 p.m. and anchored for the night. Next morning I landed with Mr. Ross in a surf boat with a Cocos crew brought for the purpose, and a party of officers and sailors also went on shore.

18. This Island has only once been visited (1893) by a man-of-war, and in that year Mr. Ross decided not to continue working it. No one had in consequence set foot there for nine years. Under the circumstances I was surprised to find that the undergrowth was not particularly thick and that we had little difficulty in getting about. The house formerly occupied by Mr. Ross was standing, although of course out of repair. The stock of food left in case of a shipwreck had not been touched and the well was in good order.

19. Only slight damage had been done by the cyclone, and Mr. Ross decided after inspection to work the island again in October.

20. Every tree and bush is covered with the nests of frigate-birds, boobys, gannets, terns, &c. The birds are quite tame and have no fear of man. The white tern, to my mind the prettiest of all, is most inquisitive and numbers of them kept fluttering round our heads. Mr. Ross showed us one of this bird's eggs *in situ*. It had been laid so as to rest between two ribs of a coco-nut leaf, and was so placed that the swaying of the leaf in the wind did not shake it off. There was no nest of any kind.

21. I walked over most of the island with Mr. Ross and there was no sign of visit by any ship, while the thousands of birds on every side were a continual delight.

22. During my stay at the Cocos very few complaints were made to me, and those chiefly by the women. Poverty and the high prices charged at Mr. Ross's store were the principal grievances, but it did not seem to me that there was much foundation for them.

23. The total value of the local currency notes in the hands of the natives at the time of my visit was £. 702 Cocos currency. It has been stated that the amount of the currency held by each man is registered. This is not the case, and no restriction is placed upon the buying and selling of articles between the

natives. I could not therefore understand, although I had a conversation with Mr. Ross on the subject, how it was that the use of the local currency notes prevented gambling and stealing. I am inclined to think that it is the smallness of the amount of currency in circulation (an average of f. 2 Cocos to every individual over 15), together with the intimate knowledge of the circumstances of every man on the islands possessed by Messrs. George and William Ross that acts as a check upon the natives rather than the absence of ordinary metallic currency.

24. If a man wishes to save money he does not save the currency notes but his pay-bills which are made out to him by name and can be kept for any length of time. These are of course all registered and non-transferable, so that loss by fire, theft, &c., is impossible. So far as I could gather, however, it appeared that the saving of pay-bills was the exception rather than the rule, as the people prefer to invest their surplus money in furniture, clothes, jewellery, &c. Consequently they are not so likely to desire to leave the islands as loss would be suffered in disposing of their property. It is, I fancy, to still further discourage departure that the rule has been made that local currency is only payable in Batavia after a deduction of one sixth.

25. Mr. Ross told me that he had already detected among his people signs of restlessness owing to the presence of the employés of the Telegraph Company. I cannot say, however, that I observed any indication of it.

26. It has been proposed to establish a Lloyds Signal Station at the Cocos, but beyond the erection of a flagstaff on Direction Island nothing has so far been done.

27. The extraordinary influence exercised by Mr. Ross over the natives and the wonderful success of his administration made a great impression upon me as it has done on former commissioners, and I am confident that so long as the present proprietor retains his health there need be no fear that justice will not be fairly and evenly administered or that the welfare of the inhabitants will not be properly attended to. So long, moreover, as the conditions of life are as favourable as they are at present, I do not think that any complaint can be made if every legitimate inducement is held out to natives to remain there.

28. Mr. Charles Ross and his family left the Islands in June and the members of the Ross family now resident are Mr. and Mrs. George Clunies-Ross, Mr. and Mrs. Andrew Clunies-Ross, Mr. Sidney Clunies-Ross, Mr. William Clunies-Ross and Mr. and Mrs. Edmond Clunies-Ross.

29. We returned from North Keeling Island on Saturday, July 19th, and after dropping Mr. Ross and his native crew

near Direction Island left for Christmas Island, which was reached on the morning of Wednesday, July 23rd.

30. I append particulars of the population of the Islands and also extracts from barometrical readings taken daily by Mr. Sidney Ross at 6 a.m.

31. Throughout my stay, which was a day or two longer than that of recent commissioners, the most generous hospitality was extended to me by Mr. and Mrs. Ross, and every facility was granted me for making enquiries and conversing with the natives. I desire to express my warmest thanks to them for their kindness, and also to Commander MacHutchin and the officers of H.M.S. "Vestal" for their attention to me while on board.

L. H. CLAYTON,

District Officer, Christmas Island.

Population of the Cocos Islands, 16th July, 1902.

Nationality.	Under 1 year.		Under 2 years.		Under 3 years.		Under 4 years		Under 5 years.		5 to 10 years.		10 to 15 years.		15 to 20 years.		Over 20 years.		Total.		Grand Total.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F	M.	F.	M.	F.	
Clunies Ross Community.																					
Europeans	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	2	—	2
Cocos Islanders	18	26	4	14	3	15	6	7	14	21	40	36	25	38	28	27	102	126	240	310	550
Bantamese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	51	19	57	19	76
Total	18	26	4	14	3	15	6	7	14	21	40	36	25	38	34	27	155	145	299	329	628
Eastern Extension Telegraph Community.																					
Europeans	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	53
Malays	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	70

Total population of the Cocos-Keeling Islands, 698.

BAROMETER.

Taken daily at 6 a.m.

Month.	Maximum.	Minimum.
September, 1901	30·08	30·00
October "	30·07	29·97
November "	30·10	29·96
December "	30·03	29·88
January, 1902	29·94	29·69
February "	30·07	29·91
March "	30·00	28·90
April "	30·03	29·87
May "	30·04	29·94
June "	30·08	29·91

Readings taken during the Cyclone of March 4th, 1902.

Date.	Time.	Barometer.	Direction of wind.
March 3rd ...	6. a.m.	29·91	—
March 4th ...	6.10 a.m.	29·83	S.W.
	8.30 a.m.	29·76	S.
	10.10 a.m.	29·28	S. } Cyclone.
	10.40 a.m.	28·90	E. } Cyclone.
	11.5 a.m.	28·92	E.N.E. } Cyclone.
	11.50 a.m.	29·48	N.
	1.35 p.m.	29·58	N.
	3 p.m.	29·64	N.
March 5th ...	6 a.m.	29·78	N.E.
	8 a.m.	30·00	—

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1902.

COLONIAL REPORTS—ANNUAL.

No. 402.

COCOS-KEELING ISLANDS.

REPORT FOR 1903.

(For Report for 1902, *see* No. 370.)

Presented to both Houses of Parliament by Command of His Majesty.
October, 1903.

LONDON:
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1903.

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21	Dominica	Report on Caribs.
22	Seychelles	Report on Para Rubber.
23	Dominica	Roads and Land Settlement.

No. 402.

COCOS-KEELING ISLANDS.

(For Report for 1902, *see* No. 370.)

GOVERNOR SIR F. A. SWETTENHAM to MR. CHAMBERLAIN.

Government House, Singapore,
9th September, 1903.

SIR,

I HAVE the honour to forward copies of a report by Mr. A. S. Baxendale of the Federated Malay States Service, who was deputed to pay the annual visit to the Cocos-Keeling Islands.

I have, &c.,

F. A. SWETTENHAM,
Governor.

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REPORT ON VISIT TO COCOS-KEELING ISLANDS.

General Post Office,

Kuala Lumpur,

13th August, 1903.

SIR,

IN accordance with instructions contained in your letter dated 30th June, 1903, I have the honour to submit a report as to the population and trade of the Cocos-Keeling Islands and the general condition of its inhabitants.

I would preface my report by recording that by an Order of His Majesty in Council, bearing date the 20th day of May, 1903, the boundaries of the Colony of the Straits Settlements were extended, with effect from 15th July, 1903, so as to include the Cocos Islands.

POPULATION.

2. The total population of the Islands is 669. Of this number, thirty-one reside on Direction (or Telegraph) Island and are omitted from the accompanying Census table, which is in the form adopted by the writers of the two most recent reports.

3. I have endeavoured to discover what has been the increase in the number of Cocos Islanders since the first recorded Census, after discounting all increments due to naturalisation of Bantamese; but I regret to say I have failed.

The following figures are taken from the various reports submitted by the Special Commissioners who have visited the Islands since 1885:—

Year.	Cocos.	Bantamese.	Total.
1874	292	198	490
1880	310	125	435
1885	377	139	516
1886	386	170	556
1887	377	118	495
1888	385	150	535
1889	385	141	526
1890	390	146	536
1891	373	183	556
1892	389	185	574
1893	394	210	604
1894	387	192	579
1896	403	191	594
1897	410	201	611
1898	425	187	612
1899	427	188	615
1901	570	68	638
1902	550	76	626
1903	567	71	638

4. It will be observed that in the two years ending July, 1901, the number of Cocos Islanders is supposed to have increased from 427 to 570; yet in the 1901 report it will be seen that there were but 52 children under two years of age, and 40 deaths are stated to have occurred on the Islands during the period in question.

5. The number of Bantamese is given as 68 only in 1901, as compared with 188 in 1899. I therefore presumed the apparent discrepancy could be explained by the inclusion, under the head of Cocos Islanders, of a number of those treated in past returns as Bantamese. It still seems to me to be certain that the explanation is to be found in this cause, but enquiries from Mr. William Ross, who keeps the records and accounts of the Islands, elicited the statement that since 1885 (the date of the first report) only 19 Bantamese coolies have become naturalised. This figure and the number of Bantamese (39) who left the Islands during the past 11 years was extracted by Mr. W. Ross after very careful reference to the records in his hands.

The total number of Bantamese imported during the past decade is 65.

6. There is no reason for supposing that the figures giving the total population are incorrect, and these would show that there has been during the past decade a total increase of 82, and that of this number 26 represents the excess of births over deaths.

Trade.

7. Owing to the severity of the cyclone that visited the Islands in April 1902, the annual shipment of copra—which it is hoped will be made during the course of this month—will fall short of the average by about two hundred tons. There were in the store only 464 tons of copra on the 13th July, and it is therefore considered impossible that even 500 tons will be ready for shipment.

8. Owing to a fall in the market price of copra, Mr. Ross fears his present stock will not realise a higher price than £15 10*s*. The reduced output and price have combined to seriously affect the prosperity of the Islands.

9. The cyclone of April, 1902, is stated to have uprooted more than 300,000 palms on the various Islands of the groups now under cultivation and a considerable portion of the labour force is still being employed in repairing the damage.

10. Another cause of serious loss to the proprietor of the Islands was the wreck in the Hebrides of his barque "Broughton." The purchase of this vessel, which originally belonged to the White Star fleet, was, after two years' experience, considered by Mr. Ross to be a most profitable investment. Less than half her cost was covered by insurance.

11. Rates of pay have remained unaltered during the past twenty years. The Bantamese are paid wages at the rate of 12 guilders a month for five and a half days' work a week. Extra pay is given to them if they work on Saturday afternoons and Sundays. This wage continues to be considerably higher than that paid for agricultural labour in Java, Sumatra, and in the Straits Settlements, seeing that the increase in the rates of pay in the latter Colony has not been proportionately greater than the fall in exchange value of the local currency.

12. In some respects the methods of cultivation of the palm adopted by Mr. Ross do not coincide with general practice, and a few facts respecting the points in which Mr. Ross's experience has induced him to depart from the commoner customs, may be of interest.

13. Seed nuts are taken from any palm of the Sea Island species without regard to its age. Eighty trees are planted to the acre, care being taken to avoid regularity in "lining." The reason for this is that wind does less damage when the trees are not in rows. Another very wise precaution to prevent the palms being uprooted by wind is to plant the seed nuts at the bottom of holes 3 feet deep. The holes so dug are not filled up by hand seeing that the light sandy soil fills up the hole in course of time. The roots of palms planted in this manner are naturally deeper and better covered than are those of trees grown from seeds embedded in the usual manner, immediately below the surface.

It is stated by Mr. Ross that a series of experiments has proved to him that nuts which are allowed to fall contain an average of 10 to 12 per cent. more copra than an equal number of carefully picked nuts.

Though at times the Islands have suffered to some extent from the ravages of the cocoanut beetle, yet men are never employed to capture and kill these pests. The trees which show signs of harbouring beetles are cut down and burnt.

14. After considerable trouble with the imported labourers the Eastern Extension Telegraph Company's representatives have now got their offices, quarters, and stores completed.

15. The cables to Perth and Rodriguez are as fine examples of the submarine cables manufacturer's craft as exist. In spite of their length a speed of 120 letters a minute can be maintained on either cable without risk of error from indistinct signals.

16. It is stated by the Company that no steps are being taken to connect the Islands with Ceylon, and thus afford India an all-British route. The laying of this cable, which was suggested in my report on the Cocos-Keeling Islands for 1899, was urged by Sir E. Sassoon on the Cables Communication Committee, and formed the primary recommendation of the Committee's Report (1902).

17. There is reason to believe that the Islands will soon become an important signalling station for vessels steaming between Colombo and Fremantle. The Islands lie directly in the track of these vessels, and sometimes—as for instance occurred in April in the case of the Peninsular and Oriental Steam Navigation Company's Steamship "Himalaya"—the name of the passing mail steamers can be read from the shore. It is probable that if the steamship companies concerned desired that their vessels should be afforded facilities for communicating by means of wireless telegraphy with the Cable Company's Office, the Company would be willing to establish on Direction Island a station on the Lodge-Muirhead system.

Condition of the Inhabitants.

18. During the year ending 30th June, 1903, there were 18 deaths among the Cocos Islanders and 3 among the Bantamese.

The ratio per mille—a calculation of but little value when dealing with such small figures—was 33·07. (The ratio for 1902 in the Colony of the Straits Settlements, omitting 466 deaths from cholera in quarantine stations, was 42·1.)

19. Rheumatism continues to be the cause of death of most of the adults. There is a complete absence of malaria throughout the Islands, and after a prolonged search I was forced to believe there were either no Anopheles mosquitoes or that they were very rare.

20. In the light of recent theories regarding the specific cause of cancer it is of interest to know that Mr. Ross states that no death due to malignant growth has ever occurred on the Islands, and in this connection it may be mentioned there is practically no running water, beer is but very rarely drunk, and the Islands cannot be considered heavily wooded.

21. The prices charged for provisions have been inaccurately stated in a previous report. Flour is sold at the rate of forty (not eight) guilder cents per lb. This price is certainly very high, but it was fixed at a time when flour was at a far higher price than it now is in the Eastern markets. Rice was also fixed at the same time, and has remained unaltered in spite of its increased price in all Eastern markets. In view of the far greater consumption of rice—the staple article of diet on the Islands—than of flour, Mr. Ross would have been well advised in his own interests to adjust the prices; a small increase in the price he charges for rice would recoup him for a large reduction in the price of flour. The friction caused by a slight rise in price is, however, described by Mr. Ross as being such a serious matter when compared with the small satisfaction expressed at a reduction in price that he has considered it advisable to leave the prices of rice and flour unchanged for many years.

22. No doubt in the event of a serious outbreak of beri-beri and any consequent desire to induce the natives to adopt flour instead of rice as the staple food, Mr. Ross would at once adjust the prices.

23. The charge for sugar is sixteen (not as stated, fifty-two) cents a pound. The price of sugar is subject to alteration at the Island store.

24. The prices are evidently not too high to enable even the most recently arrived Bantamese coolie to live in considerably greater comfort than he enjoys in his native country, while his debt (representing the advances he has received from Mr. Ross's agent) is being reduced at a minimum rate of two guilders a month. The amount generally owed by coolies on their arrival is between eighty and ninety guilders. The Bantamese coolie (Awang), referred to by Mr. Clayton in paragraph 8 of his report for 1902, continues to owe 58.75 guilders, and is, therefore, not yet permitted to leave the Islands.

25. During the year, two Bantamese returned to Java.

26. I visited the established, or public, school, and found only four boys present. I understood from the schoolmaster (Rajeli) that these youths represented all of those whom he could claim as his pupils. I then visited the house of Amrye—whose name has been mentioned in several earlier reports as a man who has for some years suffered from partial paralysis (the result of an accident on Christmas Island) and found that he had a class of six boys. He claimed that three of his pupils were absent.

27. From the little I saw of their work I gathered that though Amrye's pupils were less advanced than the "public" school boys, yet seeing that the former are on an average about two years younger than Rajeli's pupils, the instruction they received was not inferior. In neither school are any fees charged.

28. Mr. Ross promises to build a small school for Amrye. This offer was made in my presence, and I heard Amrye protest that all he required was the building material as he and his pupils would supply the labour. Nine children, none of whom are more than eight years of age, controlled and assisted by a man unable to walk more than a step or two without assistance, would no doubt find building a school house a pleasant recreation during their play-time, but Mr. Ross declared his intention of entrusting the work of erection to some of his carpenters.

29. During my stay of five days on Home Island, I took many walks through the villages, sometimes accompanied and sometimes alone. When alone I chatted with the natives I met. No complaints were volunteered, and I gained the impression that the presence of people on Direction in other conditions than those hitherto prevailing on all the Islands has not unsettled the natives to any appreciable extent.

30. The necessity for payment of the imported labourers on Direction Island at higher rates of pay than are earned by much better Cocos-born workmen seems to be understood. It is realised that Chinese and Malays have been offered specially high wages to induce them to leave Singapore, and that Cocos Islanders leaving their homes and going to Singapore, say, would find that an employer who may be willing to offer a wage of $1.50 a day temporarily on Direction Island will not pay more than 40 cents a day for similar work in Singapore.

31. I again satisfied myself that the condition of the people was on the whole more satisfactory than that of labouring classes in any part of the tropics with which I am acquainted.

32. I cannot close this report without recording how deeply I am indebted to Mr. and Mrs. Ross for the delightful hospitality I received from them during my stay on the Island, and to the Commander and Officers of His Majesty's Ship "Phœnix" for their kindness to me on the voyage.

33. I attach an itinerary which may be found useful to others performing the same journey at the same time of the year.

I have, &c.,

A. S. BAXENDALE.

The Honourable

The Colonial Secretary,

Straits Settlements.

ITINERARY.

Left Singapore at 3.30 p.m., 3rd July.

Arrived Batavia at 1.30 p.m., 6th July.

Left Batavia at 11 a.m., 8th July.

Passed Java Head at 3 a.m., 9th July, and encountered a strong head wind and heavy sea.

Arrived at Christmas Island at 11.30 a.m., 10th July. Anchored in Flying Fish Cove.

Left Christmas Island at 4 p.m., 10th July, with wind on the beam. The sea became heavier as we approached the Cocos-Keeling Islands.

Arrived at Cocos at 11 a.m. on 13th July. Anchored in the lagoon immediately opposite the Telegraph Office.

Left Cocos at 10 a.m. on 18th. The sea became less boisterous the farther we got from Cocos. Wind generally nearly ahead.

Passed Java Head at 10 p.m. on 21st July.

Arrived Batavia at 3.30 p.m. on 22nd July.

Left Batavia at 10 a.m. on 25th July.

Arrived Singapore at 8.30 p.m. on 27th. Wind and breeze generally favourable. Increased number of revolutions for a time from 112 to 140.

N.B.—Nearly the whole of the voyage the engines were working at such a speed as would propel the ship 8 knots an hour—wind and tide discounted.

Month.	Barometer.		Thermometer.		Number of days on which rain fell.	Amount of rain in inches.	Prevailing Wind.	Time of recording observations.	
	Highest.	Lowest.	Highest.	Lowest.				Earliest.	Latest.
1902.	°	°	°	°				a.m.	a.m.
July	30·12	29·95	79	75	12	8·31	E. S. E.	6.30	6.50
August ...	30·09	29·97	78	74	6	2·26	S. E.	6.25	6.50
September ...	30·16	30·02	77	73	3	·71	S. E.	5.55	6.35
October ...	30·17	30·00	78	74	4	·31	S. E.	5·54	6.25
November ...	30·14	29·95	78	74	4	1·55	S. E. to E. S. E.	5.40	6.20
December ...	30·02	29·90	79	71	5	1·13	S. E. to S. S. E.	5.40	6.10
1903.									
January ...	30·07	29·92	80	76	4	5·13	Do.	5.40	6.20
February ...	30·03	29·04	81	77	7	3·48	Variable, generally light.	5.40	6.25
March ...	29·78	28·98	81	77	14	6·16	Do.	5.40	6.15
April ...	30·02	29·85	80	75	13	8·57	E. to E. S. E.	5.46	to 6.25
May	29·99	29·87	80	76	8	3·79	Squally, generally Easterly.	5.55	to 6.30
June... ...	30·02	29·89	82*	75	17	18·04	Do.	6.10	to 6.45

* Except on 10th the highest recorded temperature for June was 79°.

Population of the Cocos Islands, 15th July, 1903.

Nationality.	Under 1 year.		Under 2 years.		Under 3 years.		Under 4 years		Under 5 years.		5 to 10 years.		10 to 15 years.		15 to 20 years.		Over 20 years.		Total.		Grand Total.
	M.	F	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F	M.	F.	M.	F.	
Europeans	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	1
Cocos Islanders	11	19	19	26	4	14	3	13	6	7	53	57	25	38	29	27	95	121	245	322	567
Bantamese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	46	19	52	19	71
Chinese	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other races	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	11	19	19	26	4	14	3	13	6	7	53	57	25	38	35	27	142	140	298	341	639